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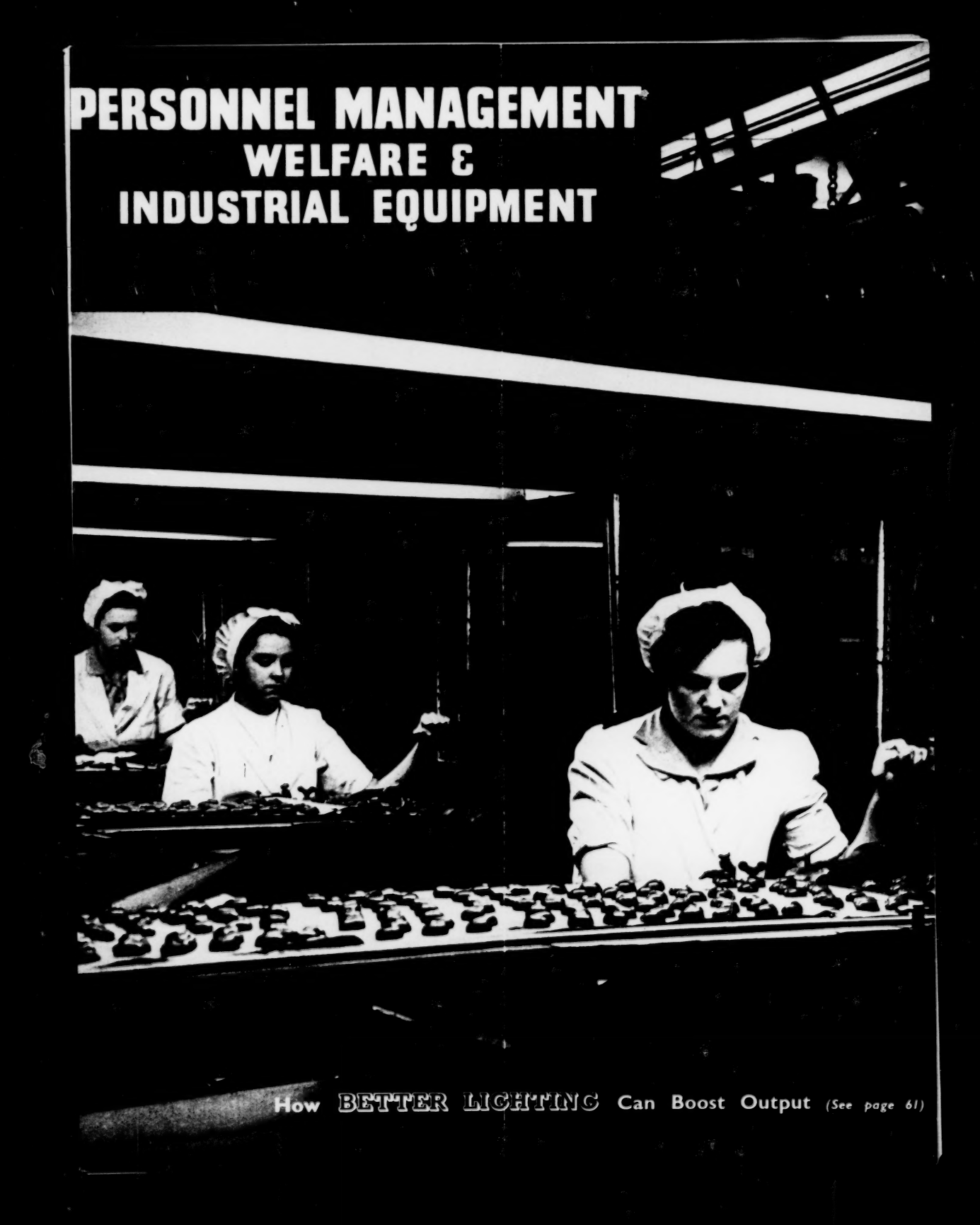
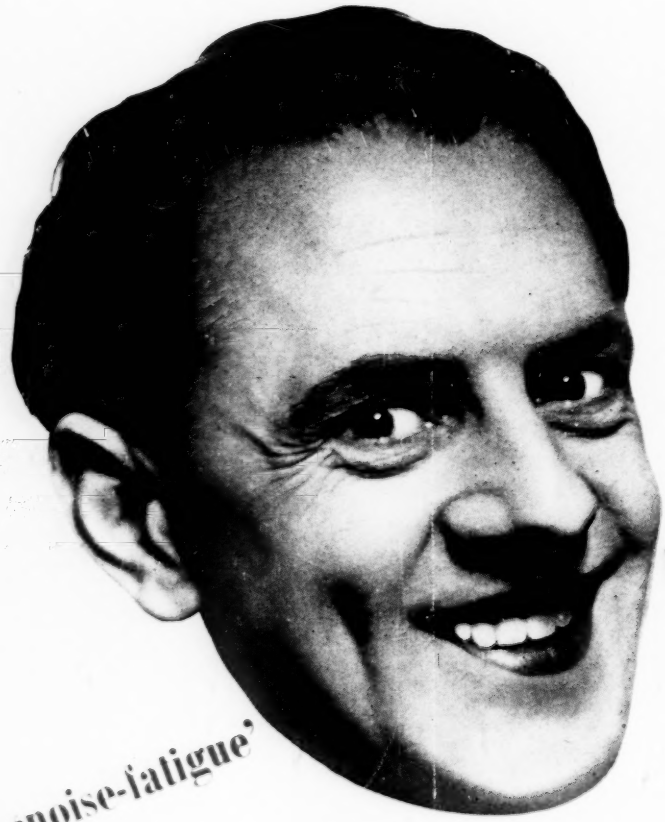


How BETTER LIGHTING Can Boost Output *(See page 61)*



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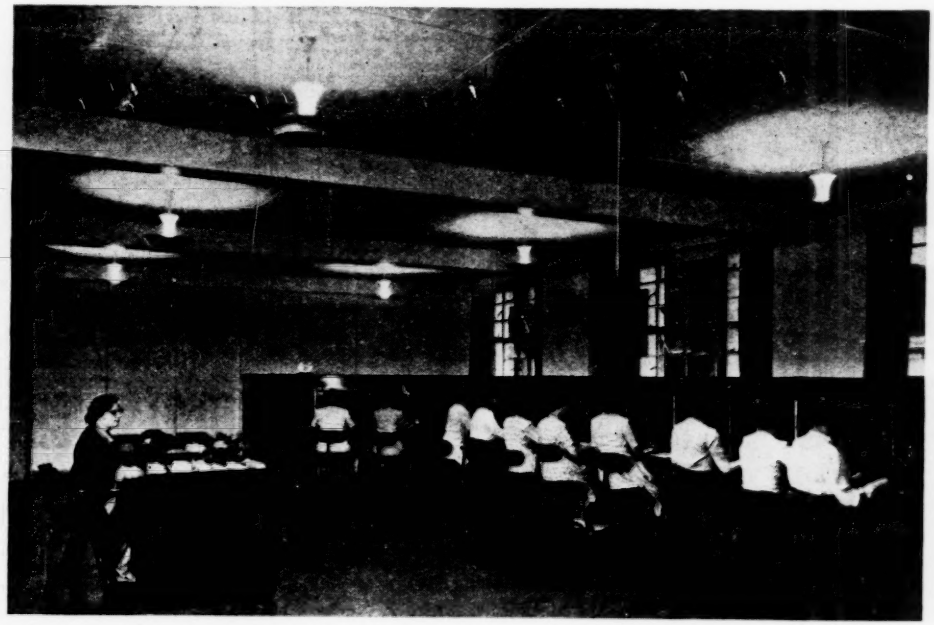

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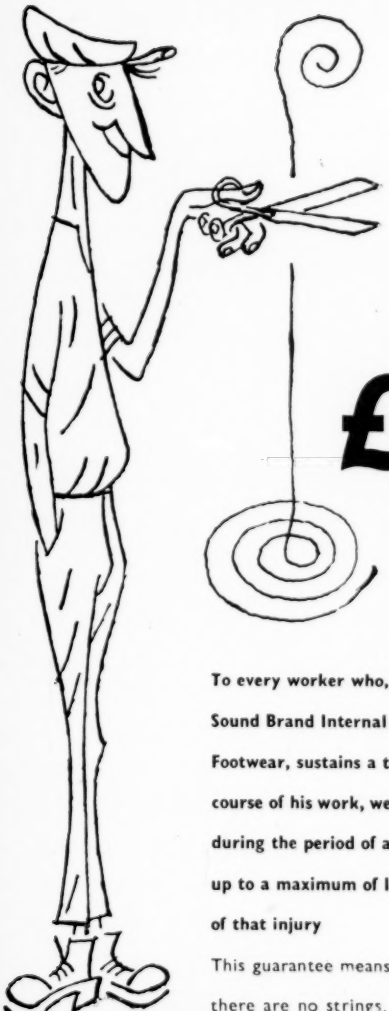

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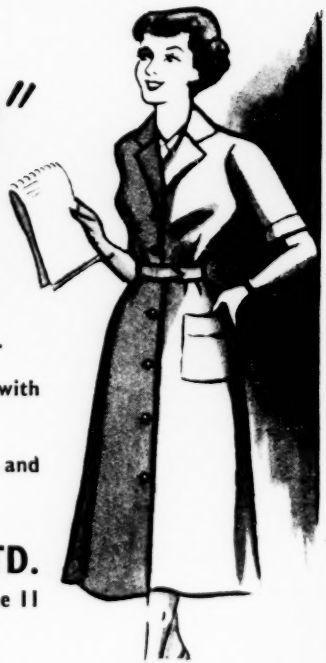

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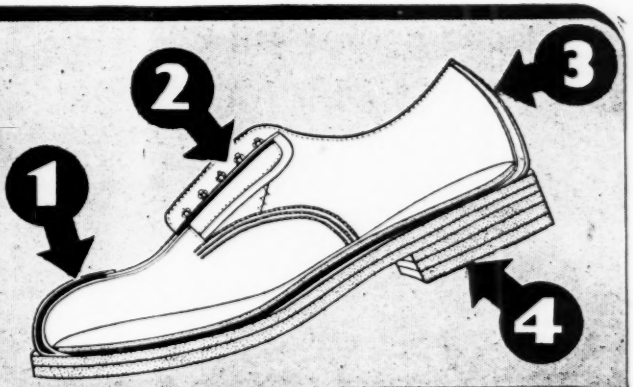

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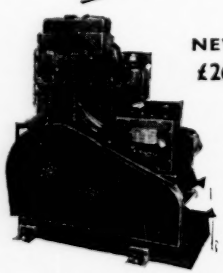

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PERSONNEL MANAGEMENT WELFARE AND INDUSTRIAL EQUIPMENT

INCORPORATING CIVIL DEFENCE JOURNAL AND A.R.P. AND N.F.S. REVIEW

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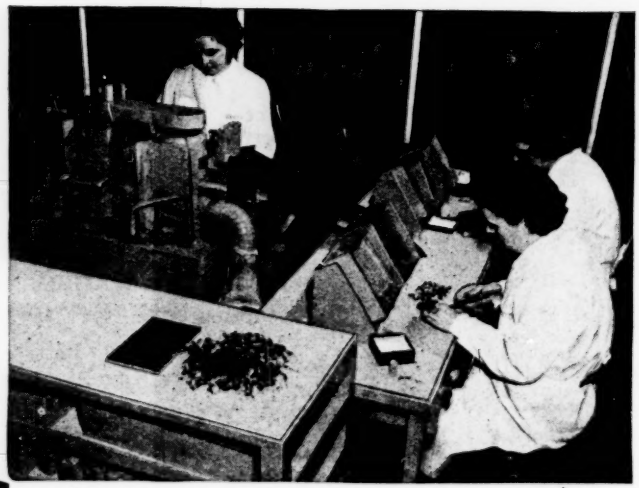

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Now is the time to prepare factory and office for the winter. In a timely article, our contributor describes just how good lighting can improve the worker's environment, and consequently increase productivity. And to help managements to guard against power cut or breakdown, his article is followed by some words of advice on the use of standby electricity generators

Cold cathode lighting by G.E.C. in the turbine room of the British Electricity Authority's Spondon generating station

How Better Lighting Can Boost Output

By A. WILCOCK, *of the Electric Lamp Manufacturers' Association Lighting Service Bureau*

THE aim of any manufacturer is quite simple. It is the production of goods of the right quality at the right price. Anything that assists the furtherance of this aim is of benefit to the industrialist, whether it be the introduction of new and better plant, new and better production and personnel techniques —or new and better lighting.

That better lighting can be placed in the same category as better plant or improved techniques has already been established and is a fact which is becoming increasingly accepted. It must continue to be stressed, however, since there are still many who regard a minimum of lighting as a necessary evil and an adequacy of lighting as an extravagance or "Blackpool illuminations." This short-sighted view is to be deplored, but must to a certain extent be forgiven as constituting the general, particularly British, attitude to "something new."

But is good lighting new? Most certainly not. Good *artificial* lighting is, but man has developed and carried out his activities for centuries under levels of daylight illumination many times in excess of those considered good in artificial lighting practice today. Out-of-doors we think in terms of hundreds or thousands of lumens per sq. ft. and not tens of lumens per sq. ft.* as in the so called extravaganza of modern artificial illumination.

Up to comparatively recent years, man's activities ceased with the coming of dusk. The industrial revolution and an expanding economy demanded the factory principle of collective labour and an adjustment of man's period of work. It is important, if man is not to suffer through these changes, that every endeavour be made to produce the conditions in our factories to which breeding has accustomed him. The most important of these conditions is easy and comfortable seeing. Sight is our most precious sense, it is the sense *via* which the majority of human impressions—estimated at some 87 per cent—are received.

It is only to be expected that the provision of good artificial lighting in our factories produces considerable increases in productivity and in the quality of goods manufactured. This is the natural order of things. Our eyes are constructed to work better under good lighting and we must continue to demand the best for all forms of activity. But increased productivity and improvement in quality of goods form only part of the story. Good lighting brings with it other benefits which are of vital interest to both management and employees. These may be listed as follows:

(a) Effect on the efficiency and health of the worker.
(b) Effect on working conditions as regards the well being of the employees.
(c) Effect on the general interior conditions—orderliness, neatness and ease of supervision.
(d) Effect on the accident rate.

A consideration of these factors is sufficient to indicate their great importance to industrial managements, employees and particularly to those directly concerned with personnel management.

Effect on Efficiency

We all become tired at some time or other. This is nature's reaction to intensive effort and safeguard against severe strain. We may become tired through heavy manual work, when we are quick to register physical weariness, but an armchair and a cup of tea work wonders on these occasions. There is, however, another common form of tiredness, which is not so readily discernible. This is the tiredness which may be exhibited by the clerk, the draughtsman, the fine tool maker or in fact anyone who earns his living by the careful co-ordination of hand and

* The lumen per sq. ft. is a measure of the degree to which a surface is illuminated. The term foot-candle, which is frequently used, is synonymous with lumen per sq. ft.

eye. The reaction is usually one of general weariness, which has no pleasant period of recuperation. Of the two the latter is the more serious. What we must realise is that we expend energy in the process of seeing in interpreting all the messages received at the eye. If seeing conditions are poor, then the task of interpretation and forming our reactions is made many times more difficult.

Above all we must remember that a tired and strained worker cannot be a good worker, nor can his disposition be such that he is a stimulus to his colleagues.

Effect on Conditions

Medical opinion has it that we are creatures of environment; that environment plays a tremendous part in the formation of our character and habits. If this be true, then the environment of our place of work is of great importance, since there we spend, on average, some 40 per cent of our waking time.

Possibly the greatest evil of bad environment is dirt, which invariably goes hand in hand with darkness. Dirt cannot thrive with light and once it is shown "in its true colours" it will be removed.

Darkness and dirt provide poor companions for the worker and influence his behaviour and appearance. Good lighting and cheerful interior decorations stimulate the worker and help to keep him alert and cheerful. One report from a woollen mill states that the reaction of the girls to such a change was startling; that "the girls came to the mill in better and brighter clothes, used cosmetics at work and generally came to take more interest in their personal appearance while at work."

Such changes are not only good for the worker, but are good for the management, since a healthy, happy employee gives the best results. *In addition, it must be remembered that the best employees go where the conditions are best.*

Effect on Supervision

Modern production techniques demand smooth flow from process to process. Anything that detracts from this systematic treatment is a deterrent to efficient operation. A major requirement of smooth production flow is that the plant should be so arranged that transportation and handling are reduced to a minimum. Well planned artificial lighting enables production requirements to be the sole arbiter of plant arrangement. With such a system the older restrictive practice of the grouping of machines around windows — which in themselves are frequently inadequate — no longer applies. The orderly, neat plant layout, designed for production purposes, in turn makes for ease of supervision.

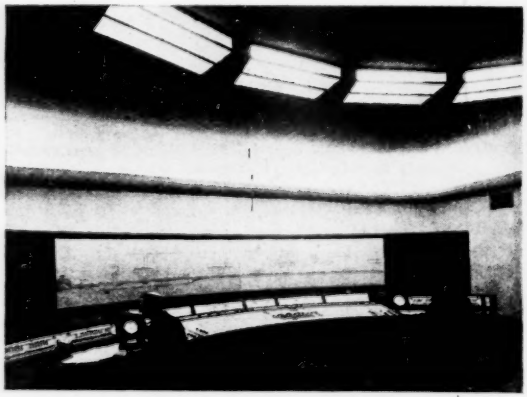
Effect on Accidents

Industrial accidents assume tremendous proportions, as the figures from the latest copies of the annual report of the Chief Inspector of Factories show.

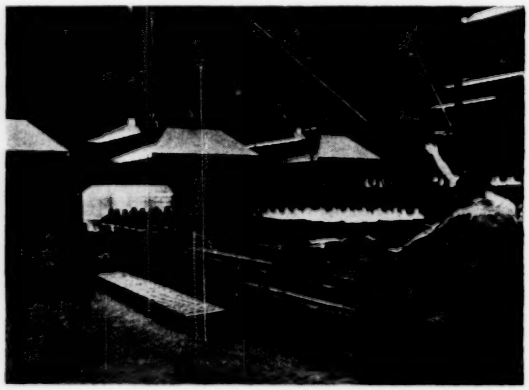
An extract from the 1949 report referring to lighting states: "It is heartening to write of progress and improvements but there is still a great deal to be done in this important subject of lighting. Apart from the effect on production and the comfort of the worker, there is that most important point to be considered—the large number of accidents which are due, directly or indirectly, to bad lighting."

The use of mechanical guards and protection schemes provides excellent means of reducing accidents. The guard in itself, however, is an admission of failure in that it assumes that the individual has not exercised his natural protective instincts. The human eye is man's major protective device and is excellently equipped for providing warning of danger. Indeed it served this function long before it was adapted to the concentrated visual tasks of modern industry. Its very great sensitivity to small changes of brightness or direction, particularly at the periphery, provides a degree of forewarning which is the essence of taking care. *But,* and it is a very important but, the eye without light is useless. Sight, the sense on which we place our major reliance, is a partnership of light and the eye. Given good lighting it is certain that many of the industrial accidents now taking place could be prevented.

This brief survey has indicated the tremendous power for good in industry which lies within the province of adequate and suitable lighting. No attempt has been made to define good lighting, since it would require a series of articles to cover this vast and important subject. The pro-



Good lighting helps to keep the worker alert. Here is the British Railways' control room at Chadwell Heath, Essex, illuminated by Ediswan fluorescent lighting



How an electrical firm illuminates its own plant—"box muffle" furnaces, used for the vitreous enamelling of reflectors, at the works of Benjamin Electric Ltd.

vision of good lighting lies within the sphere of the illuminating engineeer, who is qualified to interpret the mass of relevant data which presents itself, even on the smallest of specifications.

It should also be realised that while light here has been treated as a sort of whitewash brush, illuminating, brightening, cleansing, it is, of course, as well, a provider of beauty, defining shape and depth and bringing into our lives that most wonderful of phenomena—colour. Indeed, it is true today to say that no lighting installation can be judged on the quality of the lighting alone. Each installation should be a partnership of light and colour.

At a time when almost every available physical source of energy has been tapped, it is important to realise that in this combination of light and colour may well lie the ultimate boost to morale from which it will be possible to obtain that extra "go" that is to carry us through to what we hope may ultimately be a measure of relaxation in a world where urgency may one day cease to be piled on urgency. That such a time must come is inevitable if workers are not to become mere automata; but it has not come yet, and as long as workers are thinking human beings, with keen and healthy reactions, anything that can be done to make working conditions pleasanter will continue to produce results which are beneficial to everyone concerned.

What Standby Generators Can Do

By E. H. FREEMAN, *Chief Electrical Engineer, N. Corah and Sons Ltd.*

OWING to the steadily increasing industrial and domestic demand for electricity, the British Electricity Authority has found considerable difficulty in trying to meet the electrical load at peak hours which, especially during the winter, is greatly in excess of the available generating capacity. The result has been widespread power cuts, with their disturbing effect upon the country's production. But these cuts are not the only method of reducing load on the grid system; a first step is a lowering of the frequency, and subsequently the voltage is reduced in stages. In practice, it is possible to lower the frequency only slightly, and there are, of course, limits to which the voltage of the system can be reduced. Once the limit of reduction has been passed, the only remaining step is to decrease load by switching off supplies to certain areas, or "shedding load."

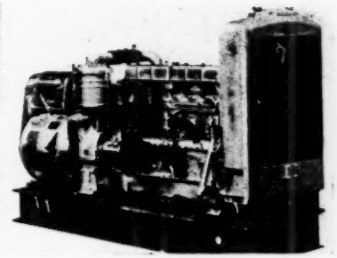
Once load has been shed, it is obvious that all production in the area concerned ceases. It may, however, not be so readily appreciated that a reduction of frequency and voltage causes motors to run more slowly and lamps to give less than their rated output, thus directly affecting production.

Nowadays a considerable number of manufacturers, aware of the dangers to plant and personnel alike, have installed their own generating plant with a view to minimising the effects of these power cuts and voltage reductions.

Such private plants today usually comprise a diesel engine, to which is directly coupled a generator of output sufficient to cover the particular electrical demand of the premises to be supplied. These units are complete with self-contained switchboard and oil storage tank, and are generally run for short periods only, during the times of peak demand on the national grid, or during power cuts.

While diesel generation plant can be obtained in quite large units, experience of load shedding during recent years has led in many cases to the use of small units often of the order of 50 kw. Such a unit often suffices to carry the total electrical requirements of a small factory during failure of the public supply. In the case of larger factories this plant may be used to carry part of the load, thus reducing the demand on the public supply system at peak load hours.

This arrangement, in many cases, has met with the approval of the Regional Board for Industry, and has enabled the firm concerned to secure exemption from the alternative courses of working "staggered hours" or of transferring some of the processes to night shift. Either of these two courses inevitably leads to labour difficulties and does not help



60 kw. Leyland-Auto Diesel direct lighting and standby generator, largely used by builders and public works' contractors. (230 or 400 volts, three phase, 50 or 60 cycles.)

production or labour relations. When, however, the worker in a factory whose far-seeing management has provided standby equipment, learns that there has been a power cut, but knows that his work, and consequently his pay packet, are quite unaltered, the psychological effect is undoubtedly excellent. Also, during frequency and voltage reductions, the private generating plant enables the factory's machinery to be run at maximum efficiency.

Where the installed generating plant is only sufficient to carry part of the load of the factory, it can be utilised to avoid stoppage of essential continuous processes, or in the case of load shedding during the hours of darkness, to maintain the whole or part of the lighting supply, and/or essential services.

The use of diesel generating plant for counteracting the effects of power cuts and staggered hours has been discussed; where it is intended to generate electricity throughout the working day, a number of factors must be considered which affect the economic use of private generating plant. Perhaps, at this stage, a brief explanation of the most common form of industrial electricity tariff will help the reader to understand the economies that can be introduced.

Most electricity boards will offer a tariff based on a maximum kw. or kva. demand during any half-hour in a specified period, and this is charged for at so much per kw. or kva. of maximum demand plus a unit charge; it will also include a coal clause, and possibly in the case of kva. maximum demand, a power factor penalty clause. So, to arrive at the average price to be paid per unit, all the above charges must be

(*Continued on page* 90.)

Profit-Sharing Brings Increasing Rewards for Both Management and Men

By G. P. WADDINGTON, *Director of G. Waddington and Sons Ltd., Hull*

"Make your employees shareholders in the firm" is the creed of Mr. Waddington and the growing number of industrialists who share his views. If you do so, they believe, you improve the quality of the product, the rate at which it is produced, and the *esprit de corps* of those who produce it. Here are details of the Waddington scheme, which has been in operation for twenty years

WE believe our profit-sharing scheme will produce an improvement in the status of our employees, which will give a better understanding of the purpose of our business and a greater knowledge of its relationship to industry as a whole. I myself am sure that the scheme will create a much better spirit and morale among those concerned. Co-partnership has the great advantage of providing the means for consultation and communication of opinion between capital, management and labour. In the past there has been far too much secrecy about economic policy and lack of confidence which can only cause conflict in industrial relations. Before describing the scheme, I must give some details about our firm, because a scheme which is possibly very well suited to a mammoth public concern may have no relation to a more modest undertaking, such as our own. Similarly, a plan which has worked successfully in one particular industry may well prove a failure in another.

The firm of which I am a director is, I suppose, what is commonly known as an old-established family business. It was founded in Beverley, a town about eight miles north of Hull, in 1849, by my great-grandfather, George Waddington, to carry on fellmongering and tanning. Fellmongering is the foundation of the light leather industry. The processes involved are those of cleaning and then removing the wool or hair from sheepskins. This is quite a skilled job, as the wool requires sorting into scores of different grades before being sent to the woollen mills. The pelt which is left after the wool is removed is processed to a stage where it can be safely stored for a short time, before being sent to the tanner for manufacture into leather.

This pelt processer is a typical Waddington employee. Like his colleagues, he may hold up to 220 employees' shares in the company.

In 1922, the company extended its scope by starting to manufacture gloves. The processes of cutting and making up gloves are carried out by craftsmen and craftswomen who, taken as a whole, are exceptionally independent by nature, and particularly jealous of their skill. Cutting itself is a very skilled operation on which the quality of the finished gloves directly depends. It generally takes at least 12 to 18 months, and costs approximately £120 to train a glovemaker to be really proficient.

We employ just under 300 people. The glove side of the business employs the most, and here, of course, girls are chiefly concerned with the machining processes. Tanning, on the other hand, accounts for the greater part of our production in value, but employs a smaller amount of labour. Our output exceeds 350,000 pairs of gloves a year and production of leather from the tannery runs at the annual rate of

4,000,000 sq. ft. The total sales of the company last year were £500,000.

Among welfare facilities provided is a new canteen and recreational centre, which cost £10,000. It has been built on the most up-to-date lines, and accommodates 200 people at a sitting for main meals. We also have a pension scheme which is open to all employees who have completed one year's service with the firm, and who are 21 years of age and over. The firm pays 50 per cent of the contribution, and the employees have such benefits as a pension of 10s. per week at 65 years of age. In the case of girls leaving the firm to get married, there is the return of all contributions made by the employee, plus the interest which has accrued, and also, should any employee leave the firm for any reason, they have the return of all their contributions. Finally, we have our own sports club and welfare association, which organises such things as socials, dances, whist drives, outings, an annual sports day, and various outdoor sports.

Employees' Shares

So much for general organisation. Where does profit-sharing and co-partnership enter into it?

About twenty years ago, my father studied various profit-sharing schemes, particularly that of J. T. and J. Taylor Ltd., Batley. He became very keen on the idea and suggested that it might be tried out in our own firm. The time was probably not very opportune, because British industry as a whole, and the leather and glove trades in particular, were in the midst of a disastrous trade depression. For this reason it is easy to understand that the proposals which my father made to his co-directors at the time were not greeted with any great enthusiasm. Nevertheless, he obtained their agreement to the creation of 3,000 employees' £1 six per cent preference shares. Owing to the difficult trading period through which the business passed during the years which followed (before the last war) only a small number of these shares were issued as bonuses, and then mainly to supervisory staff. It was not, in fact, until 1937, when my father became chairman of the company, that it was possible to develop the scheme, and a further block of 6 per cent employees' shares was then created.

After the 1939-1945 war, all employees who had served in the Forces received a gratuity, part in cash and part in employees' shares. These shares were accompanied by an explanatory letter setting out the firm's policy regarding co-partnership and profit-sharing. This was followed up by personal talks on the return of employees from the Forces, and their interest (though perhaps not their enthusiasm) was aroused.

It is understandable, I suppose, that it should take time to break down the suspicion of some people that there must be a "catch" in it somewhere. We now feel that the scheme is appreciated by the majority of participants, though it is hardly likely that it will be fully appreciated until dividends on individual employees' shareholdings are equivalent to two or three weeks' wages. We have particularly tried to explain to our employees why it is not possible to give the same amount of bonuses in cash as can be given in shares. Like many other firms, we require more capital to develop the business and this is made obvious to them when the balance sheet is discussed at the annual meeting.

Possibly 30 or 40 per cent of our employees are girls, and at the employees' shareholders' meeting last year it was agreed that all girls, and also boy employees reaching the age of 17, should be admitted to the profit-sharing scheme. No person under 21 is, of course, allowed to hold shares in a limited company, so the cash value of these shares has to be held in trust for the younger employees until they reach the age of 21. As far as girls are concerned, the cash value of the shares is always given to them as a dowry if they leave to marry before becoming 21.

Thus, all our employees, on reaching the age of 17 and after being with us for twelve consecutive months, are included in the profit-sharing scheme. Among other things, this means that employees receive exactly the same dividends as do our other preference shareholders. The number of shares issued annually by way of bonuses to each employee is at the discretion of the directors, with a minimum of ten £1 shares to employees over 21, who have been with the firm for more than a year.

An important proviso was made three years ago, this being that the minimum distribution of employees' bonus shares, and dividends paid on employees' shares, will be a sum equal to at least that of the dividends paid on all other shares of the company. In actual fact, last year this amount was three times the dividends paid to other shareholders.

The two main factors taken into consideration when issuing these shares are (a) length of service, and (b) responsibility and position held in the firm.

The firm adds to the bonus shares a sum equal to income tax payable under P.A.Y.E. by the employee; in other words, we pay whatever

Young people are admitted to the scheme at 17 years of age. These young operatives are making industrial gloves.

income tax is involved through the issue of bonus shares. Up to the present time only employees' preference shares have been issued, though we did recently create a number of employees' ordinary shares, which will have the same voting rights as other ordinary shares of the company. (Employees' preference shares have no voting rights.) Every encouragement is given to employees to purchase shares themselves, and a few have taken advantage of this.

The next important step which we intend taking with our scheme is that within the next twelve months employees will have the opportunity to appoint by ballot a director to serve on the board.

The maximum number of shares held by an individual employee shareholder at the present time is 220; at the moment twelve employees possess over £100 worth of shares.

Arrangements are made in cases of need, such as a long illness, to grant a temporary loan of up to half an employee's shareholding. I mentioned that employees are encouraged to buy shares themselves, and incorporated in our scheme is an arrangement whereby employees can have an agreed amount deducted from their wages each week and set aside for this purpose. For every £9 paid by an employee, the firm gives an additional £1 towards the purchase of a £10 block of shares. We place no upper limit on the number of shares which any individual employee may hold.

Balance Sheet Discussed

So as to give an added security to employee shareholders, we try to place to reserve each year an amount at least equal to that issued by way of bonus shares.

As soon as possible after the final audit, and after the balance sheet has been prepared, a meeting of employee shareholders is held. Each person is issued with a copy of the audited balance sheet, which is fully discussed, and questions are invited.

One of the dangers against which we have to guard is that of an employee leaving the firm, for no other reason than simply to cash his or her shares. With this in mind, we have decided that no transfer of shares is sanctioned until at least six months have elapsed from the time any employee leaves our service. Again, we have made a ruling that no sales of shares at less than £1 each can be transferred to another employee without the directors' consent.

If she leaves the firm to get married before she is 21, this glove machinist will get the cash value of her shares as a dowry.

People often ask me whether profit sharing pays, and by this I suppose they mean: are the directors and other shareholders of the company more prosperous because they share the profits with their employees? I trust I shall not offend any advertising agents who may read this when I say that this question is rather like asking whether advertising pays—a subject on which one can argue for hours without arriving at any completely satisfactory conclusion. Of course, the management must be very much poorer for sharing profits, if whatever profit has been shared would otherwise have gone to the directors and other shareholders. But, applying the same argument as the advertising agent would use, if this profit had not been shared among the employees, it might well be that the company would not have made as much as it did.

Is profit sharing appreciated by the workpeople? Well, it takes a deal of time and patience to put the scheme over, but I am sure—as has been proved by several other firms—that our scheme is creating a much better spirit in our factory. To illustrate this point I will quote one case which occurred not so long ago in our tannery, where between eighty to one hundred people are employed.

Splendid Gesture

About half are on piecework rates, earning up to 50 per cent over their basic time rates. Certain jobs in the tannery cannot possibly be done on piecework, and as both pieceworkers and time workers are employed alongside one another, it was only natural that there was a certain feeling of dissatisfaction. The solution to this problem, and one I think many managements would have hesitated to have enforced, came from the pieceworkers themselves. Realising the necessity for co-operation, they suggested that a percentage should be deducted from their own pay, to be placed in a pool and shared among the time workers. This scheme has since been put into effect and works out admirably, to the advantage of all concerned.

This is just one example of practical co-partnership, and I could cite other instances in this department alone. For instance, the Leather Workers' Union recently secured an increase for pieceworkers amounting to the equivalent of 2d. per hour above their earnings at that time. I should explain here that, for various reasons, up to then our own piecework rates had been fixed by agreement between management and workers, without consultation with the Union. These rates have, in fact, enabled pieceworkers to earn exceptionally good wages. While, by virtue of this Union agreement, they were legally entitled to the equivalent of an additional 2d. per hour, they agreed to forego this amount, in view of their already high earnings, and the fact that sales of finished leather were becoming increasingly difficult, and any additional pay would have meant a further rise in the selling price of our products.

Today the methods of making people work which were adopted in years gone by, are no longer effective. It has, I think, been proved beyond doubt that men accomplish more when they work as members of a willing team and when there is mutual confidence between them and their leaders.

How We Look After Staff in 1,500 Branches

By A. C. SPRATLING, *Manager, Personnel Dept., W. H. Smith & Son Ltd., in an interview with Leonard Taylor*

Encourage self-reliance and initiative, and promote from within: that is a summary of the personnel policy of this famous firm of wholesale and retail newsagents

The Hon. David Smith, governing director, presents prizes for good work at Kingsway College

ALTHOUGH the personnel department is a new thing in this 150-year-old business, welfare in W. H. Smith and Son Ltd. goes right back to the early days of the last century, when the first W. H. Smith worked among his men in the early hours of the morning and offered a shilling (then a coin of some value) to anyone who could pack a parcel quicker than he could.

There are few records of what form staff welfare then took, but there is evidence enough to show that its effect was to evoke a strong feeling of loyalty, and that employees brought their sons and grandsons into the business. It is clear, too, that W. H. Smith's were well to the fore, if not in the lead, with many organised schemes. The superannuation fund was established in 1894, though pensions were granted before that. In the following year a pension fund for manual workers was inaugurated, the two funds being launched with a donation of £112,000 from Mr. W. F. D. Smith (later the second Viscount Hambleden).

A sports ground was opened in 1912, a benevolent fund was launched with a donation of £21,000 in 1925, and a staff magazine was started in 1908. These and various other welfare activities were pursued side by side with trading activities under the supervision of the partners (as the directors are still called) until 1943, when the personnel department was formed by the late Lord Hambleden, great-grandson of the first W. H. Smith.

Although staff welfare is now a matter for the personnel department, the personal note remains. In this company, with its many small and scattered branches, the tradition of the personal responsibility of managers and district superintendents for their juniors has been long established, and it is the aim of the personnel department to strengthen this tradition by skilled advice and assistance rather than to weaken it by relieving branches of responsibility.

W. H. Smith and Son's branches, stretching from Canada to Cairo, include many small units. Branches range in size from one man and a boy at a bookstall, to a provincial wholesale house employing 200 people. There are nearly 1,000 bookstalls and sub-bookstalls, and nearly 400 shops, organised in districts under twenty superintendents. In addition to these retail branches there are seventy-three provincial wholesale houses or sub-houses. The head office staff is spread over five different addresses in London. The total number of full-time employees is about 11,000, of which 5,500 are in retail branches, 2,500 at wholesale branches and 3,000 at head offices.

Newsboys' cycle race at the annual sports

It is obvious that a firm of this size offers a reasonable chance of progress to its employees. It is well known that newspaper work has often been the prelude to success in other occupations. Edgar Wallace, the novelist, and Henry Royce of Rolls-Royce, for instance, were once Smith newsboys. It is less widely known that the firm itself has many well paid and responsible positions to offer, especially to the competent branch assistant.

The young male assistant in a retail branch has a very good chance of becoming a branch manager. As he proves his competence in that position he may be promoted from small to larger branches. He may become a distict superintendent or a departmental manager at head office. Smith's seldom recruit middle-aged men from outside for these higher positions, and the young man at the branch or at head office has a reasonable prospect of attaining them. Indeed the success of the firm, in a business which offers no high profits and no lucrative inventions, is in no small measure due to the devoted service of men who, starting as newsboys, have risen to these positions.

Business training is largely the responsibility of the branch or departmental manager. W. H. Smith's have learnt that juniors can best acquire competence by the example and precept of those immediately above them. There are courses of instruction at selected shops, but they are practical courses attended by only a few assistants, and most of the instruction takes place on the floor of the shop. Young men settling down after their military service spend a week going round the

head office departments, and in doing so get to know the people with whom they have to co-operate, and gain an impression of the resources of the organisation behind their isolated branches. For more senior people there are courses in modern display.

Members of the head office staff under 18 must attend day continuation classes for one day a week. This facility is extended also to staff at the branches where conditions permit. Attendance at evening classes is encouraged, and the firm pays 75 per cent of the fees, including the cost of the text books, equipment and travelling. There is no restriction on the subjects that can be taken, and grants will be made towards the cost of lessons in ballet dancing or cookery as well as of book-keeping or shorthand. The view taken by the late Lord Hambleden, who instituted this grant, was that any cultural activity was better than none for young people.

Visiting Welfare Officers

Canteens are provided at three of the London offices and also at some of the provincial wholesale houses, and at these employees under 18 have subsidised meals. Staff rooms are provided at shops with facilities for making tea.

A men's welfare officer and a women's welfare officer are constantly visiting departments, shops, bookstalls and wholesale houses all over the country to inspect working conditions, to give help in personal problems and to arrange for the transfer of misfits into more suitable jobs. They do not relieve managers and superintendents of responsibility for staff welfare. The welfare officers are there to assist and to apply uniform standards as far as possible.

A sports ground in London and an athletic association were established in 1912, and there are billiard tables and other indoor sports in the head office buildings. The provision of such facilities in the provinces is, of course, impossible except in the case of the large wholesale houses.

The size, distribution, and the all-round-the-clock activities of Smith's make a complete "get together" impossible. The nearest approach is an annual dinner, held in the summer. Although almost the whole of the Connaught Rooms are taken for this event, only about 10 per cent of the staff can be accommodated. The other important annual event is the summer sports held on the firm's ground in London.

Throughout the rest of the year the departmental and district outings or dinners and dances crowd so closely on one another that it is difficult for one of the partners to attend them all. The firm makes a contribution to the expenses of all these events.

An important link between the branches and departments is made by *The Newsbasket*, a monthly magazine started in 1912. There is also a business training magazine, *Talking Shop*.

Male employees are given a medical examination either on entering the firm or on attaining the age of 18. A doctor is regularly in attendance at head office. Staff within reach may attend for free treatment or for consultations while they are at work.

During absence through sickness, *ex gratia* payments are made to employees with more than a year's service. During the first thirteen weeks, full pay, less national health benefits, is continued, and during the second thirteen weeks half pay is given, less national health benefits.

The incidence of sickness is not high. There is no occupational disease and conditions are generally healthy. The shops with their large porches and wide doors are airy and the bookstalls are still better ventilated.

A seaside convalescent home was established at Bognor in 1949, at which staff who are in need of recuperation may stay free of charge with their fares paid. They may be accompanied by their wives at a small nominal charge graded according to salary. The wives may stay at the convalescent home unaccompanied by their husbands.

Personnel Policy

of a 1,500-Branch Firm

1. **Welfare and training largely the responsibility of branch managers. Personnel department gives specialist advice and help.**
2. **Aim is to encourage self-reliance, enterprise and initiative in employees.**
3. **Promotion to higher position almost always from inside the firm.**
4. **"Any cultural activity better than none for young people."**
5. **Welfare officers tour the branches.**

The company has its own building society, which pays 2½ per cent free of tax, and charges 4 per cent interest. The guarantee scheme instituted by the firm enables members of the staff to secure generous advances up to 90 per cent of the surveyor's valuation.

There is a friendly society which offers cheap rates for life assurance, and a benevolent fund, with funds amounting to £70,000, which helps those who, through misfortune, find themselves in financial difficulties.

Under a widows' and orphans' scheme the firm pays half the sum assured by any life assurance company up to a limit of £150.

For the education of employees' children there is a Hambleden scholarship of £100 per annum for three years, and three educational grants of £75.

There are a number of departmental holiday clubs, sick clubs and benevolent funds initiated in the past by members of the staff.

Pensions were paid in the last century under unofficial arrangements, each man's case being considered on its merits. In 1894, a superannuation fund was started, followed in 1895 by a pension fund for manual workers, and in 1927 by a pension fund for women. Contributions vary between 2½ per cent and 5 per cent, and the firm makes an equal contribution. Retiring age is 65 for men and 60 for women, but a man may retire at 60 on a reduced pension. The invested superannuation funds amount to over £3,000,000.

That is how we look after the staff in our 1,500 widespread branches. All through the organisation the aim is to encourage self-reliance, enterprise and initiative.

✶*Three Festival Conferences*

Personnel Specialists are Doing a Good Job, says Trade Union Leader

★ *CENTENARIAN OPENS I.C.A. CONFERENCE. OPPOSING VIEWS ON PROFIT-SHARING.*

★ *23 COUNTRIES REPRESENTED AT CAMBRIDCE.*

★ *MINISTER OF LABOUR ADDRESSES "PEOPLE AT WORK" DELEGATES.*

"A VERITABLE feast of first-hand information and opinion on the handling of labour from the managerial viewpoint." That was how the Minister of Labour, Mr. Alfred Robens, described the three "People at Work" conferences at Keble College, Oxford, when he declared the first of them open on June 30. But the description could be applied with equal justification to the other conferences held during the same period —the end of June and the beginning of July—by the Institute of Personnel Management (St. Catharine's College, Cambridge) and the Industrial Co-partnership Association (Wadham College, Oxford).

Grand Old Man of the Industrial Co-partnership Conference—Mr. Theodore C. Taylor, with his sister on his right and some of his staff around him

The "People at Work" conferences were organised, as a Festival year celebration, jointly by the Industrial Welfare Society, the National Institute of Industrial Psychology and the Royal Society for the Prevention of Accidents. Among the delegates were about twenty from overseas. At the I.P.M. conference, which had been arranged specially for overseas visitors, there were approximately 114 delegates from 23 countries.

The theme of all three conferences was concisely stated at Cambridge by Mr. H. L. Bullock, of the National Union of General and Municipal Workers and a former president of the T.U.C. Said Mr. Bullock: "The ideal for industry is that it is a partnership." He felt that personnel specialists had helped towards the achievement of that ideal. Their knowledge, experience and psychological approach had been an unqualified success.

The personnel specialist had "set out to understand thoroughly the firm and its operatives. He has seemed to have accomplished the impossible—giving satisfaction to the boss, justice to the operatives and progress in the industry. He is a professional in the employ of a firm who meets the professional trade union leader on common ground and spends his time maintaining peace in industry. The proof of all this is to be found in the experience of industry for the past ten years in the U.K., where production has attained heights hitherto unknown, and disputes a record 'low'."

Mr. Bullock said he did not believe in the closed shop. "If you compel a person to come in, you will make an enemy who will hit you when you are not looking."

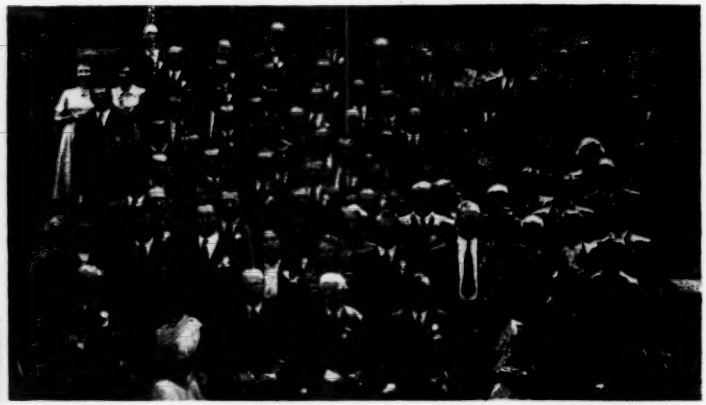
Mr. D. S. A. E. Jessop (personnel director, Brush Electrical Engineering Co. Ltd.) said there was a striking distinction between joint consultative committees and the machinery of collective bargaining. In industry the two forms could often be seen running parallel in the same firm, and often the same people would sit on both types of committee, although in different capacities.

Collective bargaining was the system whereby employers and workers, representing two opposing sides, discussed their differences. Joint consultative committees, on the other hand, provided a medium for an interchange of ideas between employers and workers on matters affecting the well-being of the whole factory.

The success of this latter type of committee depended largely upon the willingness of management to "feed" it with information.

Discussions between employers and workers, based on the fullest information, were invaluable and did not in any way detract from management's right to manage.

The increased sense of security engendered by the social services should result in a lack of fear of the worst effects of unemployment and gross poverty, said Dr. J. J. O'Dwyer (principal medical officer, Lever Bros. and Unilever Ltd.). It seemed probable that this would induce independence of mind, leading to new intellectual needs which industry must take note of in many cases. Certain people, who called themselves "realists," presented the reverse side of the picture. They



Delegates and officials at the first "People at Work" conference, held at Keble College, Oxford

maintained that any interference with what have hitherto been the prerogatives of management must be deleterious, and that cash was the only motive power of the worker. If these assumptions were granted, then the increased independence brought by the social services would have a bad effect on industry. In fact, neither of these premises was true. The Hawthorn experiment and the work of Elton Mayo and his colleagues had exploded any false ideas about the meaning of the word incentive.

The Hawthorn experiment was also mentioned by Mr. E. F. L. Brech (Urwick, Orr and Partners Ltd.) in his definition of "the personnel function of management." Management involved three factors, said Mr. Brech:

1. The technical;
2. The administrative;
3. The human.

The relative importance of these would necessarily vary from case to case, but the third was always present, always important, and inescapable. "It is from this essential human or social element in the process of management that the true concept of 'the personnel function of management' arises. Its existence has long been known, but has been submerged in vague notions of 'leadership.' Even F. W. Taylor pointed to it in his reference to 'the motives that influence men.' Mary Follet's writing and the findings of the Hawthorn investigations have been the two chief sources of identification and of emphasis in practical application."

The personnel element was inherent in all management and supervision, and could not be delegated to a specialist official. Executives and supervisors still had their own personnel job to do, however well developed the personnel organisation might be. This did not make personnel management in the currently accepted sense unnecessary or superfluous; but it emphasised the need for clear definition of the rôle of the personnel specialist. This was largely advisory and educational, a service to the executives and supervisors holding the posts of direct command.

Although the two Oxford conferences took place within a few hundred yards of each other, opinions expressed were sometimes poles apart. The I.C.A. conference was, of course, largely devoted to statements of the merits and methods of profit-sharing. But in the first paper of the "People at Work" conference down the road, at Keble College, Mr. L. P. Scott, chairman and managing director of the Manchester Guardian and Evening News Ltd., said: "I don't like piecework, I don't like profit-sharing, I don't like payment by results, but the current of opinion is moving steadily against me and I don't know how long I can hold out.

"As to profit-sharing, I regard profits as the reward of risk-taking, and I don't think the men should be asked to take risks. Security is what they want. Profit-sharing is fine while profits are going up, but a regular dividend becomes part of anticipated income; if it ever goes down, the result is the same as reducing wages, and I have a moral repugnance to reducing wages. I believe that profit-sharing firms are heading for trouble if times turn bad. Moreover, cause and effect are too distant to expect much effect on productivity. The introduction of a profit-sharing scheme must, however, have some effect in improving morale and that, if anything, is its justification."

No such doubts troubled Mr. Theodore C. Taylor, chairman and managing director of J. T. and J. Taylor Ltd., the Batley woollen manufacturers. Mr. Taylor's firm have shared their profits with their employees for 54 years, and in a voice ringing with confidence in the rightness of his cause, Mr. Taylor told the I.C.A. conference how, and why, they had done it.

His speech must be unique among opening addresses. Surely no other centenarian—for Mr. Taylor is 101 on August 3—has opened a conference before? Certainly, there can be few men of his age who speak so forthrightly, so clearly (the Press were delighted with him) and with such conviction. Mr. Taylor believes in profit-sharing because he thinks that it is a Christian way to run your business.

"Why share profits?" he said. "Because it is right. I don't denounce the employer who does not do so. There are many courses of action in this world that are optional. To share profits is one of them. I have thought the matter out pretty thoroughly and believe it is my duty to share my profits with my workpeople."

Profit-sharing, Mr. Taylor went on, was a peace-making principle. War between nations damaged both sides. Trade between nations was an advantage to both sides. Trade between two nations was a strong reason against war between them. Profit-sharing promoted international trade, and so promoted international peace. It was also a very practical proof of the employer's consideration for the worker, and a fine thing for the customer, for it gave the producer of the goods an additional interest in his work and a strong motive for doing his best for the customer.

In a very informative and well-organised session, Mr. G. P. Waddington (G. Waddington and Sons Ltd., tanners and fellmongers) and Mr. H. R. Cox (Associated Portland Cement Manufacturers Ltd.) gave details of "Some Practical Aspects of Co-partnership." Mr. Waddington writes on this theme on page 64.

Welfare is Good for You

THE welfare system at Arthur Guinness, Sons and Co. Ltd., Dublin, starts operating with the first approach of the would-be employee. Every applicant must satisfy the doctor that he or she is strong enough for the work. Three doctors, one of whom is in residence for day and night duty, attend the dispensary each weekday to give advice to workers and their families, and to widows of employees, orphans or pensioners. If a patient is genuinely unable to visit the dispensary, one of the doctors will call at the home.

The dispensary was built in 1901 and has since been enlarged and equipped to provide facilities for physiotherapy, X-ray, dental treatment, etc. The chief medical officer is assisted by a part-time medical officer, resident medical officer, consulting surgeon, two part-time dental surgeons, two chemists, a State Registered nurse, a physiotherapist, dental attendant, welfare superintendent, a laboratory assistant, two porters and a woman attendant.

Free Medical Care

In 1946, 58,000 patients attended the dispensary, 2,000 visits were made to patients' homes, and 113,000 prescriptions were compounded. Approximate inclusive annual cost of the services and maintenance of dispensary premises is £45,000. All medical treatment at the dispensary is free, including medicines. The company defrays all hospital and convalescence costs for accident cases. Dental treatment is also free, but dentures have to be paid for. Children of employees, and of deceased employees, may also receive free medical and dental treatment up to the age of sixteen, provided they are not gainfully employed.

The firm pay sickness allowances, less National Health Insurance, to employees absent through illness, and increased allowances up to full pay for accident cases. There is a savings bank, and the Guinness Permanent Building Society substantially assists employees to buy their homes. A non-contributory pension scheme provides allowances for employees on retirement, after an entitlement period of ten years service, and is extended to widows of employees.

The canteen, which provides a substantial breakfast for 9d. and dinner or high tea for 10d., is subsidised by the company, who also pay fees for employees between the ages of fourteen and thirty, to attend technical schools. A large playing field near the brewery, with pavilion, dressing rooms and full sports equipment, provides for recreational needs.

(Condensed from *Business*, July, 1951.)

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T.W.I. FOR SALESMEN

IMPERIAL Chemical Industries Ltd. were one of the very first companies to introduce T.W.I. for supervisors in their works. They were quick to recognise also that the basic principles could be useful in other parts of the organisation.

Most I.C.I. products are sold to industry as raw materials, and sales representatives are specialists; many are qualified technical men. In certain cases they have to demonstrate to customers how a product should be used; explain the safety precautions necessary; or train the customer's operatives in the use of materials and equipment supplied. In fact, I.C.I. representatives have to be good instructors, as well as good ambassadors.

During 1947 the sales controller of I.C.I. decided to test the reactions of certain sales managers to the job instruction and job relations programmes, and a group was arranged. The programmes were approved for general adoption, and to date job instruction has been given to over 200 people in sales regions, and job relations programme to 150. Nearly all sales managers and heads of departments have participated.

The job instruction time-table has been found to provide a useful way of planning training scehemes. For example, a young man may be considered as a potential salesman for the chemical sales departments. From a

More than 1,000 employees of Oldham and Son Ltd., the storage battery makers, of Denton, Manchester, received a gift of 12s. 6d. each as spending money when they went to Blackpool in two special trains for their works outing. In addition, everyone had admission tickets to various places of amusement. Here is one of the parties just after leaving the train at Blackpool. This is the fourth year running that the company have given their employees an expense-free day's holiday. Replying to a civic welcome, Mr. John Oldham, O.B.E., chairman and joint managing director, said that these trips contributed to the most important and valuable asset possessed by any firm—its "goodwill and co-operation account"

breakdown of that job it is known what knowledge and experience is required, and the job instruction time-table can be brought into use to record the necessary training. Commercial training, attendance at a three months' post-School Certificate full-time course in fundamental chemistry, instruction in the use of the products he will sell, for what purpose and how they are used, visits to the company's manufacturing divisions, can all be worked into the job instruction time-table and furnish a convenient picture of the training required.

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SAFETY GAMBLE

AN adaptation of a pinball machine has aroused interest in eye safety among employees at the Buffalo plant of the Westinghouse Corporation. Steel balls, dropped into the slot at the top of the machine, travel through a maze of pins until they finally hit the lenses of a pair of safety goggles. At this point a sign bearing the words "Why Gamble?—Wear Your Safety Glasses" lights up.

(Condensed from *Factory Management and Maintenance*, June, 1951.)

WELFARE MANSION

Film star Sheila Sim was guest of honour at the opening of Piperscroft, country mansion welfare centre of D. M. Davies, the Slough furniture manufacturers. Upper floors and stables have been converted into flats for works personnel. Eventually, it is hoped, a "factory village" will be built round this nucleus

House Magazine Digest

The Autoclave (Monsanto Chemicals Ltd.) reports that members of their Ruabon Works J.P.C. visited London to see the company's exhibit at the British Industries Fair. The object of the visit was to provide an opportunity for members of the organisation to see "how the other half lives." The trip also included a visit to the South Bank Exhibition.

The B. & M. News (Bellis and Morcom Ltd.) reports company policy on leave for military training, including Class Z, equivalent grades and all women's units. The company grant one or two weeks' leave with pay and maintain payments to the pension fund and holiday credits scheme.

Extra leave may be granted to youths who voluntarily attend camps of cadet or non-Service units, such as the Scouts, etc., but no pay is given.

The Bulletin (Johnson, Matthey and Co. Ltd.) reports the introduction of a short term training scheme for employees. It provides for experience in manufacturing departments and refineries at the company's various works, and visits to works of associated companies. Training occupies two days per week over a limited period, which varies with the needs of the particular trainee. Complimentary to practical training, the research laboratories have arranged a series of monthly lectures and discussions on technical aspects of the company's products.

The House of Burleigh (Wallis and Linnell Ltd.) carries a photograph of one of their employees, now aged 85, who has been sewing for the firm for the past 73 years. During that period she has married, brought up five children, become a grandmother six times, greeted five great-grandchildren, and been widowed.

The News Reel (J. and P. Coats Ltd., and associated companies) reports that 500 employees gathered in the canteen at Ferguslie Mills, Paisley, to hear Veronica Scott, fashion and needlecraft editor of *Woman*, speak about clothes.

Miss Scott had taken with her from London a selection of models, which were worn by company employees, who acted as mannequins. Also reproduced in this issue is a facsimile of the first page of a booklet entitled *Self Respect and What It Should Lead To*, which was presented by James Coats to every woman worker at Ferguslie in 1870.

Sperry Topics (Sperry Gyroscope Ltd.) reports that a dinner party was given by senior staff to Mr. Arthur Hillier, O.B.E., chairman and managing director, to celebrate the completion of his thirty-five years service with the company. The staff presented him with an oil painting of himself.

"She came in half canned this morning"

Courtesy of 'Maconochie Magazine'

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RULES TO REMEMBER

KEEP men fully occupied without any appearance of "driving."

Give appropriate information before taking action.

Let workers know how they are doing. Praise skilfully used stimulates. Criticism or "no comment" restrains.

Provide an incentive or reward for increased individual effort.

Create and maintain a sense of individual responsibility among all employees

Help workers to feel that their jobs are of distinct importance.

Acquire a good working knowledge of employees' capabilities. Assign jobs in relation to such factors as physical strength, abilities, experience, skill and pesonality.

Insist upon conformity of accepted company rules and shop regulations. But always be willing to discuss individual cases or problems.

Stimulate team work and loyalty among your employees.

Create a friendly and appropriately sociable atmosphere among workers in your group.

Make sure that each worker knows with whom to discuss coplaints.

(Condensed from *Supervision*, May, 1951.)

Dealing With The Problem Of Leaving Without Notice

By JOHN LAWES, "P.M." Legal Correspondent

What remedies are open to an employer? Can an employee be compelled to work out his notice? Is the employee ever justified in regarding his engagement at an end because of something his employer has done? These are some of the questions answered in this article

THE notice which an employee must give before leaving his employment is fixed, as a general rule, either by his contract of service, or by trade custom. Employees can, however, cause a serious dislocation in their employer's business if they leave his employment without giving due notice. Because of this, employers often attempt to impose some penalty upon employees who break their contracts of service in this way, not only as a punishment to the offender, but to discourage other employees from following his example.

It is, however, always dangerous for an employer to take the law into his own hands. Here are some notes on the remedies which are open to him, and on the dangers inherent in some common practices.

The courts will not order the specific performance of a contract for personal services. There is, therefore, no way in which an employee can be compelled to work out his notice. If he leaves without giving due notice, he has broken his contract of service and his employer is entitled to damages as compensation for the loss which this breach causes him. The employer is, however, only entitled to damages in respect of the loss which he suffers as a direct result of the employee's default and, as a general rule, damages awarded will merely equal the wages which the employee would have earned had he worked out his notice.

Most employers may well feel that the damages which they obtain will not be worth the trouble and expense of a county court action. In certain cases, however, where the amount in dispute is less than £10, there is a speedy and inexpensive procedure open to employers under the Employers and Workmen Act, 1875. Under this Act, a claim for damages for breach of service agreement may be brought before a local court of summary jurisdiction if the employee in breach of his service agreement was engaged in manual labour.

The existence of this remedy should be borne in mind as it is especially useful for employers who find that they have a steady stream of employees leaving without giving proper notice. The publicity has a deterrent effect upon other employees, but it may also, of course, make it difficult to obtain substitute workers.

Many employers seek to punish an employee who leaves without giving notice by withholding his "cards." This is a breach of the National Insurance regulations, and employers who adopt this practice may lay themselves open to proceedings. Insurance cards are the property of the Crown and their sole object is to enable the provisions of the National Insurance schemes to be implemented. As Crown property, they must not be used by an employer as a weapon in a dispute with an employee.

Regulations under the National Insurance Acts provide that an employee must be given his cards on the *de facto* termination of his employment. The fact that the employee has terminated the employment illegally by failing to give proper notice is immaterial. This method of punishing an employee should therefore never be used. Employers can be assured, however, that an employee who leaves his employment of his own free will is not entitled to receive unemployment benefit.

Another variety of self-help sometimes adopted by employers is to withhold any wages which may be due to the employee at the time he leaves. This procedure is also fraught with dangers for the employer. The question of whether a man's pay may be withheld is difficult to answer and much must depend on the facts of each case. Generally, however, the only occasion when wages can be withheld is when an employee leaves in the middle of his wages period. For example, if an employee is paid by the week, but leaves without notice on Tuesday, his employer is not obliged to pay him wages accrued due from Saturday to Tuesday. If, however, the man leaves on Friday, the day upon which his week's wages are due, his employer has no right to withhold payment. The man is entitled to the wages for which he has worked.

A further remedy open to the employer against an employee who leaves without giving due notice is to refuse to give the man a reference. The value of this refusal is, however, slight in the case of operatives in current conditions. Further, if asked for a reference, the employer may state that he is not prepared to give one because the employee left his employment without giving notice.

So much for the remedies. It must be remembered, however, that in certain circumstances, the employee is justified in treating his employment as at an end by reason of some act of his employer. If, for example, an employee is placed in a position of danger not envisaged when he began his service, he is entitled to treat this as a breach of contract by his employer. He can then leave without notice and, further, he has a claim against his employer for wrongful dismissal.

How Courtaulds Train Their Employees

To improve general efficiency within the company and to offer employees every encouragement to prepare for promotion—these are the main objects of the education department of Courtaulds Ltd., world-famous rayon spinners and weavers

ALTHOUGH it is only in recent years that industry generally has shown any marked interest in education, Courtaulds Ltd. has, for many years, taken a great interest in the technical and professional training of its workers and later extended it to cover the general education of its young employees. As educational activities in the firm's various works became more numerous they did not all develop in the same way, and it was because the Board realised that a general policy and central organisation were necessary that in 1946 they set up an Education Department. This works in close collaboration with the Personnel and Labour Departments (dealing with staff and operatives respectively) which had already been responsible for the development of a number of training schemes.

The general administration of the Education Scheme was placed in the hands of a Central Education Committee under the leadership of a Director of Education, responsible to the Board. Two executive officers were appointed, a Chief Education Officer of the whole organisation and an Education and Training Officer for the yarn mills. Members of the committee were chosen for their academic and technical knowledge and industrial experience.

Once policy is approved by the Board, responsibility for carrying it out rests with management, and "Local Education Officers" have been appointed in each works to serve as a link between management and the Central Department. These Local Education Officers are appointed by asking managers of local works to nominate members of the staff who are interested in education and prepared to devote a certain amount of spare time to it; the actual appointment rests with the Central Education Committee. In the Yarn Division each works has a Works Education and Training Committee appointed to act in a consultative and advisory capacity. The committee consists of the Works Manager, Local Education Officer and Labour Officer, who have power to co-opt other members as required. In the Textile Division, the fact that mills are generally smaller has led to the adoption of a different method. The Director in charge of the Division has appointed a committee to assist him in all educational matters concerning the Textile Division, and where necessary, to take action in matters arising from the company's educational policy.

Training weavers in a Courtauld mill. A demonstration of knot-tying

Primary aim of the Education Department is two-fold; to improve general efficiency throughout the company; and to offer all possible encouragement to employees of intelligence and character to prepare for promotion. By offering facilities to adults as well as juveniles, to those already employed as well as new entrants, the ultimate aim of the department is to help build up a body of workpeople who will have real satisfaction in their work.

In developing its plans, the Central Education Committee has always adopted the principle of making full use of the educational facilities offered by the Local Authority rather than setting up elaborate training centres of their own, but internal training is needed in some cases. The educational activities of the company cover a wide range, from the continuation of general education for

young people to technical training of specialists up to and beyond university standard. The following is a brief survey of what is being done.

General Education. — All young employees from 15 to 18 are released for continued education one day a week. The company believes that this continued contact with learning eases the transition from school to work and contributes towards an improvement in industrial relations.

New Entrants.—An Induction Course is planned for all new employees joining the company. Boys of a practical type can enter the company's Trade Apprenticeship Scheme to be trained as tradesmen. Training schemes for the yarn mills, textile mills, processing mills and dyehouses, have been set up to attract grammar school boys who would not otherwise consider starting a career in the works. Such schemes are also open to young people already in the works who have shown the necessary ability. Staff trainees are trained for junior administrative or executive posts with the possibility of ultimately filling senior posts.

Internal Training.—In addition to training new entrants, the most important problem of internal training has been the training of supervisors. The company also provides Vacation Courses for students from universities and technical colleges.

External Courses.—Members of various types of specialist staff are encouraged to study for some qualification in their own profession. Most of this is done by part-time study, but provision is made for students of special promise to be sent full-time to university or technical college. Other external facilities used by the company are those provided by such bodies as the Administrative Staff College, and adult education centres.

Grants to Universities and Technical Colleges.—In recent years the company has done much to encourage teaching and research in textile technology and similar subjects of importance to the British rayon industry, and has made grants totalling £270,000 to textile departments of various universities and colleges in addition to £120,000 for the endowment of the Chair of Chemical Engineering at the Imperial College of Science, and set up the Courtaulds' Scientific and Educational Trust Fund.

The Training Scheme in Brief

1. **Technical, professional and general education provided.**
2. **Scheme administered by a central education committee.**
3. **Policy approved by the board, and carried out by management, with local education officers in each factory.**
4. **Full use made of facilities of local authority.**
5. **New entrants given an induction course. All between 15-18 years have one day's continued education per week at technical school.**
6. **Internal training for supervisors as well as new entrants.**
7. **Vacation courses for students from University and technical college.**

An instructor shows how to trace a broken warp end

MANAGEMENT BOOKSHELF

Wage and Salary Administration

A.M.A. HANDBOOK OF WAGE AND SALARY ADMINISTRATION. American Management Association, 330 West 42nd Street, New York 18. $7.50.

Setting forth the basic principles and requirements that must be considered at every stage of planning and administration, the editors have designed this handbook to meet the needs of companies that contemplate establishing a formal programme of wage and salary administration for the first time, as well as those who wish to review and improve their present programmes in the light of tested and up-to-date techniques.

In addition to a comprehensive discussion of the basic principles and approaches in wage and salary administration, the thirty-four chapters of the handbook cover such subjects as: techniques of the wage survey; case histories in wage and salary administration; effective compensation methods for salaried jobs; supervisory and executive salary administration; joint labour-management job evaluation; salary administration for multi-unit operations; methods for keeping wage programmes up-to-date; selected forms for job evaluation; and results of recent research into simplified wage administration.

A model manual used by Armstrong Cork Company to explain its wage programme to employees is reproduced as an appendix.

Why U.S. Output is High

Three More Productivity Teams Report

BRUSHES. In the opinion of the Anglo-American Productivity Team, productivity in the American brush industry is higher than in the United Kingdom. Among the reasons given for this are the good relationship between management and employees and the attitude of both to productivity, the emphasis placed by management on money turnover, the greater use of machines and the availability, good quality and lower prices of certain raw materials.

The team recommends that British industry should adopt incentive payment systems, and that welfare should be considered as an important factor in obtaining and maintaining high productivity.

The report attributes good labour relations in the American industry largely to the organisation of all employees in a plant, irrespective of their jobs, in one union branch, known as a "local," and the negotiation of a labour-management contract for each factory.

The contract provides considerable security for the worker, and the union, through an official known as a business manager, has a more definite place than in this country within the factory organisation. This business manager recognises the value of the profit motive and his job is to ensure good conditions for his members, which he does on the principle that their prosperity depends upon the prosperity of the firm. This attitude of the unions promotes a desire among all, employees and management, to secure for the factory the maximum turnover and optimum profit.

NON-FERROUS METALS. "Productivity is definitely higher in the U.S. than in the U.K. On the other hand, quality of product is no better." This is the team's conclusion.

It seemed to the team that certain characteristics are universal throughout the American industry: (1) acceptance of competition; (2) ingenuity; (3) inventiveness; (4) improvisation. And linked with these is "the national spirit of enterprise and the readiness to take risks."

Continuous operation by three 8-hour shifts is the rule. Five shifts make up the normal working week of 40 hours. There is equal pay for equal work, irrespective of sex or colour. There is an *esprit de corps* which is centred on the success of the company, mainly because earnings are involved. Bonus or incentive schemes are common. Grievances are set out on an appropriate form; this is an agreed procedure and saves time by discouraging any stoppage or slow-down.

VALVES. Average productivity in the U.S. valve industry is higher than that in the U.K., but the range of valves manufactured is so wide that the team was unable to gather enough information to say by how much.

The team was impressed with the close personal contact between senior management and employees which exists in America. The president of one company employing 450 workers tours the whole factory three times a day and makes a point of speaking to a number of different operatives on each visit. Comparatively large staffs are employed to take the pressure of detail off management, leaving it free to concentrate on the overall picture.

Extensive use is made of job evaluation, and the team consider that it could be introduced more widely with advantage in Britain.

They recommend that technical education of both staff and potential staff in the U.K. should be fostered to the greatest possible extent. There is an urgent need for additional full-time university or college courses. Until this can be met it is more important than ever that employers ensure that their student apprentice schemes are a satisfactory substitute and that apprentices are encouraged to make full use of part-time training courses at technical colleges.

"The Worker in Industry"

LORD PIERCY, chairman of the National Youth Employment Council, spoke on "The Nation's Youth and Manpower Needs," at the first of a series of lectures on "The Worker in Industry," arranged by the Ministry of Labour and National Service to mark Festival Year.

After reviewing industrial progress over the past 100 years, he focused attention on some of the problems of today. "Our primary problem is the utilisation of manpower in industry to make good a popular claim for a standard of living which existing resources and techniques will with difficulty afford. It is a question of efficiency—a greater *per capita* production; a production that will permit more saving and investment as well as high consumption and maintenance of social services.

"Supply and utilisation of manpower is half the problem. It is possible to sort out some of the main strands in the manpower problem; the educational system, training for industry, and the Youth Employment Service.

"The educational system is a major factor. It affects the manpower problem in two ways: it withdraws for the period of education a substantial quantity of potential workers from industry; it releases young persons for industry at an age which is late compared with former ideas, and thereby has transformed the problems of reception into industry and training. As a result, however, the recruit to industry should have a general background of knowledge and developed intelligence, and in some cases the foundations of a vocation."

The scarcity of the young recruit in our day had greatly increased the sense of responsibility of employers in taking them into industry. To secure the best results there must be carefully devised arrangements for the reception of the young person into industry and carefully planned training. The study which had been given to training for industry, and the development of practice in training by the best managements, was one of the most encouraging features of our time.

A major post-war contribution to the manpower problem was the establishment of the National Youth Service. The Youth Employment Service was strictly voluntary. Its aim was to guide and help young people in the transition from school to working life.

Lord Piercy concluded: "The object we must keep before us is a greater productivity of labour within the beneficient conditions which rule our times."

Arthur English, the radio comedian, sports his Wall's tie during the annual outing to Southend of T. Wall and Sons Ltd. With him are (left) Mr. Alan Parsons, who produced the cabaret which entertained more than 1,500 of the firm's employees, and (right) Mr. Alun S. Phillips, personnel manager

WAGES NEWS AND VIEWS

COLLIERY CLERKS—A national reference tribunal award of 5s. a week increase for employees under 21, and a reduction of a year in the period required for an adult employee to reach the minimum rate, has been accepted by clerical workers in the coal industry.

ENGINEERS—National Committee of the Amalgamated Engineering Union at its recent annual conference instructed the executive to apply for a further increase of 1½d. per hour for skilled workers in the electricity supply industry, with proportionate increases for certain other employees. This would bring the rate for skilled men up to 3s. 6d. per hour.

MINERS—A resolution demanding a minimum of £7 10s. for underground workers, and corresponding adjustments for other grades, was carried by the conference of the National Union of Mineworkers last month. Another resolution, asking for an increase of 3s. a shift for piece-workers, was also carried.

Discussing a new wages structure, the general secretary stated that there were 1,160 names for jobs in mines, some of which were the same job. It was hoped that eventually there would be three main classes for underground day-wage men and three for surface men. Wage rates differed vastly between the two, and 78 per cent of men were on national minimum rates. The union's aim was equal pay for equal work irrespective of the economic position of the district.

POLICEMEN—A special negotiating panel has been formed to discuss pay demands submitted by the Police Federation and higher ranking officers. Pay demands vary, but for constables the increases sought amount to about £2 per week.

POST OFFICE ENGINEERS—Post Office Engineering Union has submitted to arbitration a claim for wage increases for the main engineering, supplies and motor transport grades. Increases claimed range from 16s. a week for a labourer to 30s. a week for a technician after one year's service, and larger increases for technical officers.

RAILWAYMEN—National Union of Railwaymen's conference last month adopted a resolution recommending that the union should proceed with a claim for a substantial wage increase. It also recommended that the general secretary be instructed to expedite negotiations for pensions for railwaymen, for increased payments for Bank Holidays and other working holidays, and for lodging terms and meal allowances. Other unions are to be invited to reach agreement on a common claim.

Five students from overseas—three from Nigeria and two from Pakistan—are included in this group of twenty-nine apprentices taking an automobile engineering course at the Fallings Park (Wolverhampton) works of Guy Motors Ltd.

RETAIL WORKERS—In view of objections raised to the inclusion of bakers' roundsmen within the scope of the Retail Bread and Flour Confectionery Trade Wages Council, the Minister of Labour has withdrawn the draft Order for further consideration.

ROAD HAULAGE WORKERS—An increase of 7s. a week in statutory minimum wages of adult road haulage workers and juniors to whom existing adult rates apply, has been proposed to the Minister of Labour by the Road Haulage Wages Council. Other junior workers would receive increases ranging from 2s. 6d. to 6s. a week.

How Many Jobs for the Over 45's?

A COMPREHENSIVE survey of the problem of employment of older people, issued by the Ministry of Labour and National Service, attempts to discover the attitude of older people themselves to remaining at work, and the attitude of employers towards retaining or engaging them. The purpose of the survey is to provide the Ministry with a basis on which to formulate a policy aimed at increasing the total number of older people in employment. In all, 1,950 men and 482 women were interviewed, and employers' representatives from 923 firms.

In April, 1950, 65 per cent of men and 16 per cent of women between the ages of 55 and 74 were engaged in full-time or part-time employment. A comparison with the employment situation in the same age groups in 1945 shows that while the proportion of women in full- or part-time employment has remained roughly stationary, the proportion of men is lower. The main decline has taken place between 65 and 69, that is, at pensionable age.

It was found that 49 per cent. of both men and women said they were working because they must. Forty per cent. of men and 30 per cent. of women said they must work but also preferred to. The remainder said they preferred to work. Nearly two-thirds of the men in employment said that they would go on working as long as they could.

About half the employers approached were in favour of employing men and women aged 45 and over. A higher proportion were in favour of employing skilled than unskilled workers, and a higher proportion were in favour of employing unskilled workers than staff. About a quarter were willing to engage staff over 45 who were disabled and about one-fifth were willing to engage operatives who were disabled. It was estimated that in practice in all the firms concerned for every 10 men aged 45-49 who are engaged in a year, 3 men aged 60-64 are engaged and 1 man aged 65 or over.

Equal Pay for Equal Work

THE International Labour Office adopted by 105 votes to 33, with 40 abstentions, the much-disputed convention relating to equal pay for men and women for work of equal value. The United Kingdom delegation was among those who abstained.

The application of the principle of equal pay in the Civil Service was recently rejected by the Chancellor of the Exchequer. In a statement to the House of Commons he said that the introduction of this principle in the Civil Service would inevitably lead to demands in other public services and industry and commerce generally. This would raise industrial costs, drive prices

still higher and increase taxation. The Government did not feel they could proceed to extend the principle until the full consequence for the economy as a whole could be accepted within a relatively short period of time.

Industry Needs the Family Spirit

THE need for clarification of responsibilities in industry was stressed by Mr. N. W. R. Mawle, managing director of British Typewriters Ltd., and national vice-chairman of the Incorporated Sales Managers' Association, in a presidential address to West Bromwich Rotary Club last month.

Industry today was a joint enterprise in which management, workers, locality, Government, trade unionists and consumers played a part.

He added, "The workers as such possess no rights or duties under Company Law and they are not as a rule mentioned in the company's articles except in connection with pension rights. The worker has neither rights nor duties in Company Law in his capacity as a worker. Neither has the consumer of the goods manufactured or sold by the company, and the interests of the community find no place in the modern doctrine of common law. Their existence is ignored. We may well ask 'To whom is industry responsible?' The only persons to whom the directors are in any way legally responsible are the shareholders. The shareholder is not the only one taking a risk—that, I am sure, will be generally admitted. A shareholder's risk is limited to the value of his share; the worker's risk can be far greater—his whole means of support may be taken away at a moment's notice."

The place where the reconciliation should be made between the interests of the worker, community, consumer and shareholder is the boardroom of the company. The achievement of such reconciliation is the highest function of the management and the task of the legislator. Mr. Mawle added, "The family spirit is needed in industry—by that I mean co-operation, partnership, and the acceptance of mutual responsibility."

Mr. Mawle contended that the weakness of company law at present was that directors were without legal guidance as to their responsibilities to the workers, the consumers and the community. In his view, the objects of a company should be set out in terms of its obligations:

(a) To the company itself (its development, financial stability and future growth).

(b) To the shareholders (to pay regular dividends in accordance with the company's articles).

Mrs. Lillian Gilbreth, president of Gilbreth Inc., U.S.A., looking at the scroll with which she was presented as the first honorary Fellow of the British Institute of Management. With her are (left) Mr. L. O. Russell, B.I.M. director, and Mr. L. Austin Wright, general secretary of the Engineering Institute of Canada.

(c) To the workers in the company (to provide stable employment under good conditions as far as possible).

(d) To the consumers of the company's products (to make good castings, springs, printing or whatever it may be at fair and reasonable prices).

Railway Unions' Efficiency Drive

TWO of the three big railway unions have agreed in principle to suggestions for meeting the manpower shortage on the railways, and for improving passenger and freight services.

Among the suggestions agreed are the employment of Italian labour on permanent-way work, civil engineering and telecommunications; sacrifice of one week of the fortnight's paid annual leave by the staff in undermanned areas, on the understanding that the men will receive two-and-a-quarter weeks' pay; working of a 48-hour week in undermanned areas, payment being given for the extra four hours at the rate of time-and-a-half, plus additions for night and Sunday duty; retention of workers over the age of 65, with a provision that compensatory promotion arrangements would apply.

The Associated Society of Locomotive Engineers and Firemen, whose membership is almost entirely confined to footplate men, has refused to be a party to the agreement, but their objection is unlikely to prejudice the operation of the plan.

Miners' Pension . . .

DRAFT proposals for a miners' pension scheme have been prepared for submission to the miners' delegate conference in September.

The scheme provides for pensions ranging from 10s. to 30s. a week at the age of 65, according to length of service. Underground workers will contribute 1s. 6d. a week and surface workers 1s. 3d. One of the main concessions gained by the unions was the extension of the scheme to surface workers, as the Government originally intended it to be confined to underground men. The National Coal Board will contribute 2s. a week for each underground man, and 1s 8d. for each surface man. Additional benefits may be obtained by good attendance.

. . . & Welfare Schemes

A NEW welfare scheme, responsibility for which will be taken by the National Coal Board, was referred to by Lord Hyndley, when he opened a new wing of a welfare holiday centre at Skegness recently.

The Miners' Welfare Fund would end this year, and under the new scheme colliery welfare, pithead baths and canteens would be the responsibility of the Board, while social welfare of people in the industry would be the responsibility of a new organisation—the Coal Industry Welfare Council. The Board has agreed to give the new Council £1,000,000, which would be additional to the sum of about £1,500,000 already held for social welfare purposes.

Union Expulsion Judged Void

ACTION of a branch of the Tobacco Workers' Union in removing a factory security officer of W. D. and H. O. Wills from the union register was declared to be "contrary to the principle of natural justice" by Mr. Justice Croom-Johnson, in a case brought at Bristol Assizes recently.

The Judge granted a declaration that expulsion was void, and gave leave to the defendant to apply for an injunction, if necessary, to restrain the union from carrying out the branch's decision.

The defendant had reported two of his fellow workers to the management for reading and making notes from a confidential document found on a desk in the factory. The men had been dismissed, but one of them, a member of the union branch executive, was finally reinstated.

Later, the defendant was informed that his name had been removed from the branch register. The matter was discussed by the branch and the defendant was tried and sentenced in his absence.

How To Train Employment Officers

THE committee appointed by the Minister of Labour to consider recruitment and training for the Youth Employment Service, recommends that new entrants should be drawn from a variety of other occupations. and be not less than 23 years of age. They should have a full-time training course lasting a year, with facilities for practical work. A training board should be set up to help the training establishment choose candidates, issue certificates, and advise on development of training. Students should be given financial assistance.

Good News For H.S.A. Contributors

THE Hospital Saving Association announces the following increased scales of dental and optical benefit:

Double dentures £4 5s. Health Service charge, £2 H.S.A. benefit; single denture £2 to £2 10s. Health Service charge, £1 H.S.A. benefit; glasses, minimum £1 3s. 4d. Health Service charge, single pair 10s., reading and distance, 15s. H.S.A. benefit.

Dental benefit, formerly for contributors only, is now extended to their wives, as is optical benefit. The contribution of 4d. a week, covering the whole family, and the range of other benefits, are unchanged.

This substantial easement of the new charges in the Health Service may be enjoyed by nearly 1,000,000 H.S.A. contributors and by 500,000 of their dependants.

Proposed Control Of Employment Agencies

THE Government propose to ratify the convention of the International Labour Conference, by providing some measure of control and supervision over fee-charging employment agencies to prevent any abuse which may arise from the engagement of workers through these agencies. The Government also propose to ratify the I.L.O. "protection of wages" convention.

Who Could Resist?

FROM a "Situations Vacant" advertisement in the *Grocer*:

"Lady wanted. Old-established East-cheap house requires immediately, competent shorthand typist. Duties include some copy-typing, filing and record keeping (involving work on own initiative). No swimming pool, no canteen, no pithead baths, no music-while-you-work (except the telephone), BUT NO SATURDAY WORK in pleasant surroundings. Daily hours, 9.30 a.m. to 5.15 p.m. Weekly gift packet, £5 10s. to £6, subject to preliminary argument.

"Unpleasant boss can be largely ignored as long as the work gets done —firm itself can produce satisfactory references. Queue forms on the left."

The Minister Said . . .

Answers to Questions in the House

Appointments (Age Limit)

Policy for encouraging employment of elderly workers has been endorsed by the National Advisory Council and a specific request to employers to review their practice in this respect was being circulated to employers' organisations. The Ministry's local offices were bringing this point to the attention of employers in appropriate cases.

(*Minister of Labour, June* 21, 1951.)

Factories (Safety Devices)

Birmingham and District Industrial Safety Group were congratulated upon their recent exhibition showing safety devices which help to prevent accidents in factories. Exhibitions of this nature were to be encouraged and the co-operation of officers of the Ministry of Labour and National Service was freely available at all times.

(*Minister of Labour and National Service, June* 28, 1951.)

Rearmament Programme (Labour Force)

Measures necessary for ensuring skilled labour for the rearmament programme have been discussed with the National Joint Advisory Council, including arrangements for training and up-grading of dilutees. Terms and conditions of employment were, however, a matter for each industry to settle in accordance with individual circumstances.

(*Minister of Labour and National Service, June* 28, 1951.)

National Insurance (Emphysema)

Emphysema was not recognised as an occupational disease in respect of any industrial process except in so far as it may occur in association with pneumoconiosis or byssinosis in the processes for which those diseases were prescribed under the Industrial Injuries Act.

(*Minister of National Insurance, July* 2, 1951.)

Married Women

At the end of May, 1950, there were approximately 2,800,000 married women at work.

(*Minister of Labour and National Service, July* 3, 1951.)

Factory Inspectors

The number of factory inspectors on July 1, was 331, and the number of factories at the end of 1950 was 241,064. Allocation of work among inspectors was not based on numbers of factories but on the nature and amount of work to be done. The Factories Act did not lay down a standard of substantial inspection, and the amount of time varied so widely between different factories that it was not possible to give an average of the time devoted to each.

(*Minister of Labour and National Service, July* 12, 1951.)

SAFETY SECTION

Safety Officers Must Foresee The Danger Spots

By ANTIAC

It is management's responsibility to ensure (a) that every possible cause of injury has been removed from the machines in their factory, and (b) that the chance of anyone injuring himself by "reasonably foreseeable" behaviour has been reduced as much as possible. The second requirement is a tall order—but our contributor describes a scientific method of tackling the job

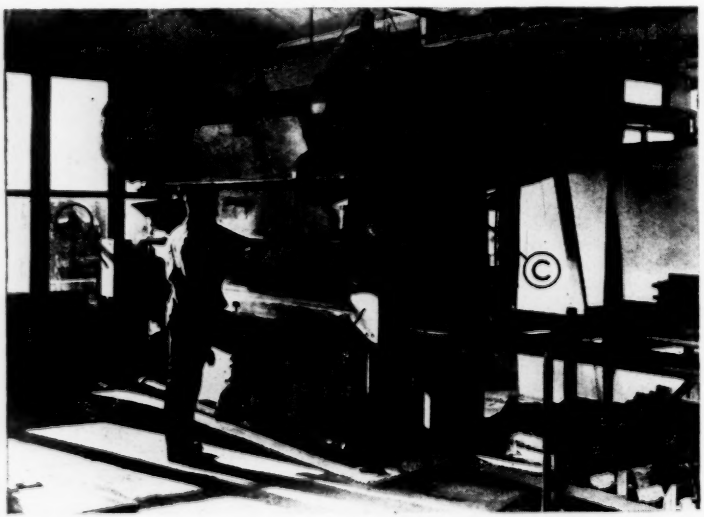
THERE has emerged from the judiciary during the past few years the doctrine that it is incumbent upon factory occupiers to examine machinery in advance of putting it into production, in an endeavour to assess whether or not there is a possibility of any person in the course of employment meeting with an accident from any of the machinery parts when they are in motion or use.

The vagaries of human behaviour must be taken into account. This was how Lord du Parcq expressed it in *Stimson v. Standard Telephones Ltd.*, 1939: "The behaviour of human beings that has to be regarded is such behaviour as is reasonably foreseeable but which is not necessarily confined to such behaviour as is reasonable behaviour."

It would appear that the occupier of a factory in which a person has been injured on dangerous parts of machinery can escape liability under the law only if the injured person has exercised some deliberate and perverted effort to place himself into the risk of an accident—in other words, has performed a wrongful act which was not reasonably foreseeable.

This doctrine may be termed that of "foreseeability of the performance of unsafe acts" and is the principle that must be adopted for the assessment of any intrinsic or potential dangers attending the use of machinery; the legal requirement—if danger is indicated—is to fence securely the dangerous parts according to the best known methods in industry.

Accordingly, a grave onus is placed upon factory managements—to ensure not only that every possible cause of injury has been removed by revision of design or provision of other adequate safeguards, but also that the chance of any person performing unsafe acts in relation to dangerous parts of machinery has been reduced as much as is humanly possible.



A Clearing press brake equipped with a Radiovisor photo-electric guard. "A," receiver; "B," projector; "C," clutch control mechanism. Note red warning light above the projector

In order that the relative importance of accident causations may be appreciated, it can be stated that an industrial injury-accident is due to the convergence at a moment of time of four complementary factors which are termed:

1. The personal factor.
2. The material factor.
3. The unsafe actional factor, and
4. The proximate causal factor.

The personal factor includes all persons who, in the course of their employment, or work in the factory, are exposed to the risks inherent in the machinery, plant or processes which comprise the impersonal means of production and are included in the term material factor.

Production is carried on by the combination of those two factors but no accident can occur, however lacking in safety consciousness the individual may be or to whatever degree the machinery, plant or process may be dangerous, until or unless the worker begins to perform an unsafe act at his work or an unsafe actional event is superimposed upon his normal employment.

These two—the unsafe action or the unsafe event—are included in the unsafe actional factor, which is predominant in the accident time sequence. An injury may immediately follow the first performance of an unsafe act or an initial unsafe event, or after a certain number of repetitions, de-

pending upon the nature and circumstances of the machinery, plant or process.

An "unsafe event" in this connection is that of a dangerous condition not directly caused by any personal action, such as the build-up of over-pressure in a boiler, steam receiver or air receiver; the over-speeding of a flywheel; or the outbreak of fire.

Restricting this examination of accident causation to machinery processes, it is known from the researches of Heinrich in the U.S.A. that should an unsafe act be repeated for a statistical number of times—say "n"—an accident will inevitably occur and the chance of its happening upon the first or any subsequent repetition depends upon the proximate causal factor which, by acting when the three other factors are in conjunction, converges all four at a moment of time to produce the accident. The proximate causal factor may be that of inadvertent starting up of the machine, breakage of the control of driving parts, accidental setting in motion when parts of the body are in a dangerous position, etc. To these factors the design and maintenance staff should give close attention.

Fortunately, practical experience in investigation of machinery accidents has enabled the following list of dangerous parts of machinery to be tabulated. They will go on causing accidents in the future unless their risks are diminished by safeguarding.

25 *Dangerous Groups*

The safety executive has therefore guidance upon foreseeability when dealing with those parts of machinery that are certain to give rise to hazards within the scope of the material factor.

For complete accident prevention measures it is necessary, of course, also to develop a scheme for training all personnel to avoid the performance of unsafe acts.

Experience has proved that the parts, or combination of parts, of machinery given in this list are dangerous. They will cause accidents if not securely fenced or if not of such construction as to be as safe as they would be if securely fenced.

1. Revolving Shafts, Spindles, Mandrels and Bars. Machine shafts, sensitive drilling machine spindles, chucks, drills, reamers and revolving attachments; drill spindles, boring bars, stock bars, vertical traverse shafts on milling machines and the like. Close fencing only solution.
2. Inrunning Nips Between Pairs of Revolving Parts. Gear wheels, friction wheels, calender bowls, mangle rolls, metal manufacturing rolls, rubber washing, breaking and mixing rolls and others.
3. Inrunning Nip of the Belt and Pulley Type. Belts and pulleys, plain, flanged or grooved; chain and sprocket gears, conveyor belts and pulleys, metal coiling and the like.
4. Projections on Revolving Parts. Key-heads, set screws, cotter pins, coupling bolts and the like.
5. Revolving Open Arm Pulleys and Other Discontinuous Rotating Parts. Pulleys, fan blades, spur gear wheels and the like.
6. Revolving Beaters, Spiked Cylinders and Drums. Scutchers; rag-flock teasers, cotton openers, laundry washers and the like.
7. Revolving Mixer Arms in Casings. Dough mixers, rubber solution mixers and the like.
8. Revolving Worms and Spirals in Casings. Meat mincers, rubber extruders; spiral conveyors and the like.
9. Revolving High Speed Cages in Casings. Hydro-extractors, centrifuges and the like.
10. Abrasive Wheels. Manufactured wheels, natural sand stones and others.
11. Revolving Cutting Tools. Circular saws, milling cutters, circular shears, wood slicers, routers, chaff cutters and the like.
12. Reciprocating Tools and Dies. Power presses, drop stamps, relief stamps, hydraulic and pneumatic presses, bending presses, hand presses, revolution presses and others.
13. Reciprocating Knives and Saws. Guillotines, for metal, rubber and paper cutting; trimmers; corner cutters, perforators and the like.
14. Closing Nips Between Platen Motions. Letterpress platen printing machines; paper and cardboard platen machine cutters, some power press and similar adaptations.
15. Projecting Belt Fasteners and Fast Running Belts. Bolt and nut fasteners; wire pin fasteners and the like. Woodworking machinery belts; centrifuge belts; textile machinery, side belting and others.
16. Nips Between Connecting Rods or Links and Rotating Wheels, Cranks or Discs. Side motions of certain flat bed printing machines; of jacquard and other automatic looms and various other machines.
17. Pawl and Notched Wheel Devices for Intermittent Feed Motions. Planner tool feed motions; power press dial feed tables and the like.
18. Nips Between Reciprocating and Fixed Parts, Other than Tools and Dies. Metal planer reversing stops; sliding tables and fixtures; cotton spinning mule carriages and back stops, pillars, etc.; shaping machine tables and fixtures; tool steady guide and steady arm on turret lathe and others.
19. Nips Between Revolving Control Handles and Fixed Parts. Traverse gear handles of lathes, milling machines and the like.
20. Moving Balance Weights and Dead Weights. Hydraulic accumulators; counter balance weight on large slotting machines and others.
21. Nips Between Revolving Wheels or Cylinders in Pans or on Tables. Sand mixers; edge runners, crushing and incorporating mills; dough braker; mortar mills, leather currying machines and others.
22. Cutting Edges of Endless Band Cutting Machines. Woodworking band saws; log-cutting band saws; metal cutting and stone cutting band saws; cloth cutting band knives and the like.
23. Nips Between Gears and Rack Strips. Inker roller drives on L.P.P. and lithographic machines; some planing machine drives and the like.
24. Revolving Drums and Cylinders—Uncased. Rumblers in the foundry; shaking barrels; barrel type dough mixers; varnish mixers; rag digesters and the like.
25. Nips Between Fixed Parts and Uni-directional Moving Parts. Buckets or hoppers of conveyors against tipping-bars, stops, or parts of the framework.

The references to machines or uses given in each group are typical for each and are not exhaustive. One or more of the groups will be found on every machine, so that by an examination of any machine with reference to the list, those which must be guarded in order to prevent accidents can be immediately discovered. They should be securely fenced by any of the five methods of guarding, bearing in mind that a fixed guard should be used in preference to any other.

The Five Methods of Guarding.

Dangerous parts of machinery that are not in such a *position* or of such *construction* as to be as safe to every person employed or working on the premises as they would be if securely fenced, may be made safe by the use of:

1. A fixed guard, or
2. An automatic guard, or
3. An interlock guard, or
4. A trip guard, or
5. A positional safety guard or any combination of such guards.

From a paper on "The Fencing of Dangerous Parts of Machinery," by Henry A. Hepburn, B.Sc. (Eng.), M.I.Mech.E. "Proceedings" of Institution of Mechanical Engineers, 1944, Vol. 151, page 27.

Welfare Officers Discuss Their Status

A CONFERENCE of welfare officers assembled to discuss themselves—their work, status and training—was organised by the Institute of Welfare in London recently. The chairman was J. O. E. Steele, chief welfare officer, British Electricity Authority.

Opening the conference, Lord Amulree said that he believed that all welfare activities should be complementary to each other, and that the Institute was performing a valuable service in bringing together welfare officers of all types.

Harry Saunders, M.B.E. (Kent County Council) spoke on "The Status of the Welfare Officer," with particular reference to the social welfare officer. He maintained that serving the physically handicapped and mentally affected members of the community was a great vocation, and such a "calling" could not easily be given professional status.

"The Education and Training of Welfare Officers" was the subject dealt with by Harold Shearman, M.A. (University of London). He stated that before potential welfare officers could be trained it must be established that they were worth training. Consideration must be given not only to intelligence but also to personality, and this made selection a major problem.

F. E. Oldfield (consultant) spoke on "The Necessity for Welfare Officers." He surveyed the reasons why welfare officers were necessary to the community and why it was essential their work was appreciated and its importance recognised. Welfare Officers were concerned in one way or another with improving human relations. They were specialists in this field, doing work which could not be done equally well by other people.

Speaking on "The Basic Functions of a Welfare Officer," W. H. Watkinson (director, Jewsbury's Motors Ltd.) stated that the main function and foundation of all true welfare activity was the creation of emotional health. Mr. Watkinson added that the part of the welfare officer was summed up in a definition he had once heard which referred to the welfare officer as "a great human oil can."

Industry Could Make Better Use of the Disabled

By R. W. M. KRAUSS, Ph.D., A.B., Ps.S.

As industry plays the decisive part in the employment of disabled persons, choice of job and job training should be aligned with industry's needs. So contends our contributor, a specialist in research into the employment of the disabled. And he suggests a way in which it could be done.

ON March 19 this year, there were 48,000 disabled persons in Great Britain who could do useful jobs but were out of work. This is a national waste. The country, besides losing the benefit of the production of 48,000 workers, pays them to be idle. The disabled themselves have no chance to achieve that sense of citizenship and "belonging" that is their due as human beings. They form, in fact, a pool of untried labour.

What actually are we to think of when speaking of disabled persons? There are not only the many types of war cases, but also the steady flow of casualties from road, industrial and domestic accidents. There are the sufferers from a whole variety of illnesses such as orthopædic, cardiac and T.B. cases; diabetics and epileptics; and those with gastric ulcers, strokes, or impediments in hearing or vision. Finally, there are those people who have been disabled from birth.

A lot has been done by both Government and private initiative to get as many of these people into employment as possible. Industry is compelled by law to make up 3 per cent of its total work force from disabled persons; in fact, it employs nearly 5 per cent.

In spite of this public-spirited conduct, a comparison between the number of unemployed disabled people *who are suitable for ordinary employment* and all registered disabled people, and between the corresponding number of the ordinary unemployed and the general working population, shows 5.5 per cent unemployed among the disabled, but only 1.39 per cent among the able-bodied workers. Such are the figures, even though, in our percentage figure, the unemployable among the disabled are disregarded. If they were included the figure would be 6.4 per cent.

Yet it is in industry's interest to look into the question of employing the disabled. The disabled worker appreciates his job because it means so much more to him than does the normal worker's. Put to the right job, the disabled man can keep up with his able-bodied colleague, and also there is a return which cannot be expressed directly in £ s. d. Looking after the disabled creates goodwill and confidence throughout the factory floor. It has its reactions on the ordinary workman, who knows that he is not lost when some misfortune happens to him.

A number of firms have worked out excellent schemes for productive retraining and useful employment of their disabled labour. For instance, the rehabilitation workshop of Vauxhall Motors Ltd. has made a name for itself. It is not only an example of the way in which the work of the disabled can be fitted into the main production programme, but also it has created a kind of "industrial therapy" which has proved to be a pioneer effort in the whole field of occupational therapy.

But Vauxhall, like most firms who have taken steps in this direction, did so with their own workpeople in mind. What about industry in general?

The decisive feature in the cases of Vauxhall, Austin and others is that they—the industrialists—have taken the initiative. Previously, the initiative has generally been on the side of the disabled or their representatives, among whom the Ministry of Labour must be rated the largest. Industry has been approached either wholesale (as, for example, by the law enforcing the 3 per cent quota) or in the interests of certain groups of disabled.

Such an approach has two great disadvantages: (1) Employing the disabled appears as a favour granted to the disabled themselves or to their representative body — an attitude which is wrong from the outset; (2) An appeal to industry by each group of disabled separately is most uneconomical and tends to become trying for industry at large.

But now that the initiative has been taken by industry, a turning point has been reached. Surely, as it is industry which plays the decisive part in the employment of the disabled, the choice of jobs and training should be fitted as much as possible to industry's needs. How to do this?

I visualise a small centre, sponsored by both the partners concerned —industry and the disabled. Its terms of reference would be:

1. To collect information from firms who have disabled training schemes in operation.

2. To enlist the help of trade associations. In co-operation with them it might be possible to call into being training centres where selected disabled people could learn *the very job* for which there was a labour shortage in an individual industry.

3. To comb industry for job descriptions of its main operations (similar to those done for the Australian cotton industry) and, where necessary, thereafter with job analysis. This would be the job of the industrial psychologist. Wholesale placement will never, of course, be possible. The individual case will always have to be taken into consideration, because two cases with the same medical diagnosis can be totally different, seen from a psychological angle. While the results of the case study must necessarily be variable, the job study would offer comparatively stable results.

As the work grows the investigations into the individual job-operations are bound to result in useful information for the firms and industries concerned. Experience has shown that research into the problems of the disabled has often brought to light new data which in some way or other were also valuable to able-bodied workers.

How to Plan and Equip Your Civil Defence Unit—2

Last month we dealt in general with the preliminary programme for the organization of civil defence units in industry and commerce. The present article examines the duties of the warden—the "all-rounder" of the C.D. team

ONE of the most important members of the factory Civil Defence officer's organisation is the warden. He must not only be a jack-of-all-trades, he must be master of them all, too. As the *Civil Defence Industrial Bulletin No.* 1 puts it:

"In the ordinary way, after the receipt of an air raid warning, rescue and first-aid squads will remain at the rescue or first-aid posts until ordered to an incident. It is the prime duty of the warden section to report damage to the control post, when the control officer will order out the parties required; in the meantime, of course, wardens will render what immediate help they can.

In the plan drawn up by the Home Office and published in the "Preliminary Memorandum on the Organisation of Civil Defence in Industrial and Commercial Establishments" (H.M.S.O., 6d.), the following are the numbers of wardens recommended for various sizes of firms: up to 500 employees, two senior wardens, ten wardens. Up to 1,000, four seniors, twenty wardens. Up to 2,000, eight seniors, forty wardens. Up to 5,000, twenty seniors, 100 wardens.

"Wardens should be able to undertake radiation monitoring and technical reconnaissance for unexploded bombs and gas. It is their job to co-ordinate the operations of the Civil Defence services at an incident, to prevent panic, and to conduct employees in an orderly manner to their allotted places of shelter. Wardens should be on duty in each shelter."

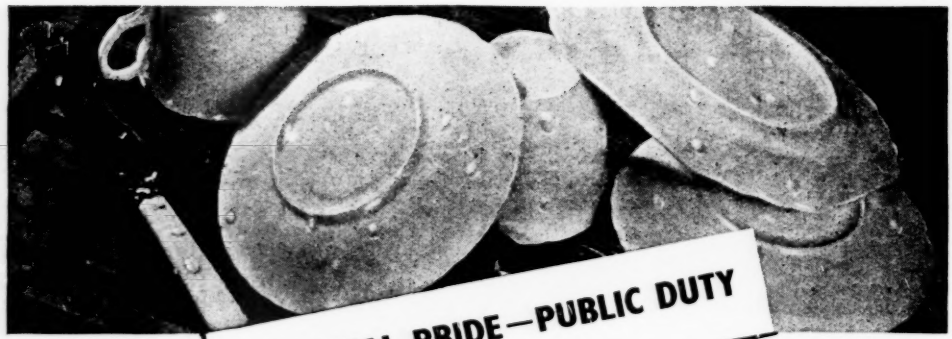
Civil Defence officers will find the up-to-date training of the warden exhaustively explained in one of the latest pamphlets—No. 3—issued by the Home Office. (*Civil Defence, Manual of Basic Training, Vol.* 1—*Warden Section.* 1s.) The pamphlet does not cater specifically for the warden in an industrial Civil Defence unit, but this does not detract from its value to the factory C.D.O. who is planning his training programme. By far the greater part of the warden's duty is common to both the factory and the town outside its gates. Therefore, apart from instruction in purely local matters (geography of the factory post area, etc.), the training of the industrial warden can proceed on the same lines as that of his colleague in the town.

The pamphlet deals with basic, section, specialist and team training; training by means of drills; how to collect information, send a report, report crashed aircraft and unexploded missiles, and keep a log book. Instructors are told to emphasise that reconnaissance and reporting are two of the most vital of the warden's responsibilities. "If the high standard of efficiency required is to be reached, there must be frequent practical work in message writing and reporting, the detection and reporting of unexploded missiles, morse and semaphore signalling for a selected number, and map reading."

The Home Office stress that co-operation is highly desirable between the industrial, county borough and county Civil Defence organisations, and from the pamphlet the factory or office C.D.O. can obtain a picture of the typical organisation and duties of the local authority units with whom his wardens would have to work if war broke out. There is also a chapter on co-operation with other services, such as the police, the fire services and the W.V.S.

Wardens, being responsible for their post area as a whole, must be able to take suitable action if the utility services—water, gas, electricity and sewers—are damaged. The pamphlet gives some useful, down-to-earth information on how these various services work, and how to tackle damage pending the arrival of trained repair crews.

Demonstrators in full C.D. kit at the Falfield (Gloucester) training school testing for a "hot-spot" in a "radio-active" area



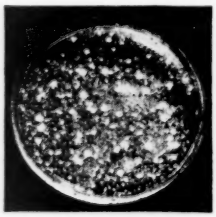
PERSONAL PRIDE—PUBLIC DUTY

How many customers use your cups, glasses, cutlery in a day? You can't check the health of every user. Even healthy people can be "carriers" of dangerous infections. The smallest cafe can be the focal point of serious outbreaks of sickness. It's your responsibility.

The danger is in the washing-up water

An infected utensil goes into the sink. Some of its germs will be left behind. The next utensil is therefore washed in *infected water*. And the next, and the next . . . Germs are invisible. Utensils that *look* bright and clean may be safe—or positively dangerous. These pictures prove it.

Bacteria in untreated washing-up water



Washing-up water treated by the Deosan Method

THE DEOSAN
CLEAN FOOD SERVICE ROUTINE

A few simple procedures, adding nothing to your staff's labours and little to your running costs will ensure complete sanitization of your washing-up, put you way ahead of increasing official vigilance in this matter. You'll have a kitchen to be proud of, you'll have performed an urgent public duty. A postcard to the address below will bring you full details.

Deosan Limited, 10-12 Brewery Road, London, N.7. ASSOCIATE COMPANY OF MILTON ANTISEPTIC LIMITED

Industrial Equipment

THAT RAISES PRODUCTION EFFICIENCY

Readers who wish to have more particulars of any of the products referred to in this section are asked to write to the Editor, quoting the reference number which appears at the end of the paragraph.
We are always glad to receive details of new products suitable for description here, e.g., welfare, first-aid, handling and safety equipment, etc.

FLOOR CLEANING

Floor Sweeper

THE Cimex is hand-operated and can be pushed quite easily at a normal walking pace. It sweeps up dust, swarf, factory litter and broken glass. Width of sweep is 24 in., and about 30,000 sq. ft. can be covered in the hour. Two independent rotary brushes are fitted for manœuvrability, and these are adjustable to take up wear. The dust container is quickly detachable for easy emptying.

Pilot wheels are provided so that the brushes are not in use when the machine is being moved from one location to another. The whole machine is constructed of heavy gauge sheet steel and fitted with rubber-tyred wheels, fenders and handle-grips. Finish is stove enamel. **(PM/394.)**

Scarifying Machine

THE removal of impacted materials such as oil, grease and swath, bakers' dough, chocolate, soap and other similar materials which build up into a hard coating on factory and workshop floors presents a special floor cleaning problem. Hand scrapers are frequently used to remove these deposits but at best this is a slow and laborious method which is seldom completely effective. The chief disadvantage to the use of a scraper is that there is the danger of damaging the floor by digging into or chipping the surface.

Wet scrubbing whether done by hand or with mechanical cleaners is not really practicable as such heavy deposits when mixed with a liquid solvent form a sludge which is not easily removed and several scrubbings and rinsings are necessary before the surface can be made really clean. Owing to the large quantities of water which have to be used, this method can generally be carried out only after normal work has ceased and premises are unoccupied.

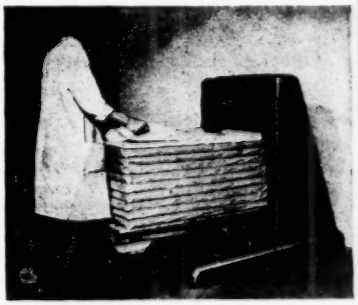
An entirely new machine has been developed to do this job. It is known as the Bittern scarifying machine, and is fitted with two wire brushes of unusual design which give a "dry scrubbing" or scarifying action and break up impacted materials into a powder form without the use of any solvents or liquid. The powder deposits can subsequently be swept up, leaving the floor dry and clean. The two brushes counter-rotate, thus eliminating any tendency for the machine to drag to one side or the other. The ¾ h.p. motor has a reversible drive which makes it possible to change the direction of the rotation at will; this device considerably lengthens the life of the brushes and gears. After heavy deposits have been removed any further build-up can be prevented by the use of lighter gauge wire brushes. **(PM/395.)**

HANDLING

Autolift

THE Autolift brings modern mechanical handling methods to the problem of feeding or off-loading from production machines. For any job which entails lifting material from loaded pallets, so that as the load decreases, the operator is bending lower and lifting higher, the Autolift speeds the job by bringing the material automatically up to the most convenient height after every lift. This means that there is no longer any bending or unnecessary lifting.

Similarly, work coming off production machines can be loaded on to a descending Autolift so that an easily handled pallet-load can be trucked away. **(PM/396.)**



Electric Stacker

THE Goliath Hemel tiling portable electric stacker incorporates a friction drive lift which enables it to be used on awkward electric power supplies, e.g., D.C. or A.C. single phase. The stacker is fitted with a 15 cwt. Hemel friction hoist driven by a 3 h.p. motor which is kept in operation all the time the machine is in use. Consequently, the motor starts with full torque and can give a good speed of

lift—25 ft. per minute in the case of the 15 cwt. model illustrated.

Lowering is done by gravity and is controlled by a brake. A speed of 60-70 ft. a minute can be obtained. Retractable spragging screws fitted on each side of the uprights and extending 12 in. outwards give a stable base for unloading bales at top level. **(PM/397.)**

Skid Jack System

ADVANTAGES of this new system are that it provides a combined method of trucking and storage which reduces the internal handling and transport of goods to a minimum. The Skid Jack is a separate unit mounted on two wheels and is designed to operate with semi-mobile skids or platforms. Platforms are constructed of heavy angle with a timber decking and fitted with two legs on the front and two wheels on the back. A bracket is provided on the front into which the Skid Jack engages, permitting the load to be lifted automatically with very little effort.

The Skid Jack is so balanced that there is no weight or pressure on the operator and the load is easy to handle and manœuvre, even in the most congested area. The device takes up little space and can be placed out of the way when not in use. One jack will serve any number of platforms which can be used both to transport goods and as unit load containers. By this method material in store is ready to be wheeled away whenever required.

In addition to the standard flat topped platforms, which are made in a number of sizes, Skid Jacks can also be supplied with a variety of built up superstructures to handle special types of goods. **(PM/398.)**

COIN HOLDER

This Coin Holder provides a means of holding coins conveniently arranged in channels. Designed for use in any place where change is made, or for payrolls of less than 100.

Full details from:—

R. A. L. LTD.

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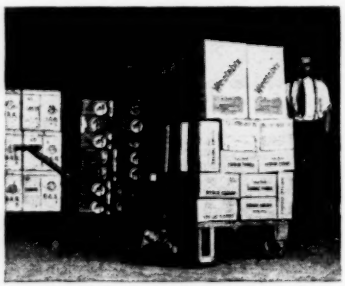
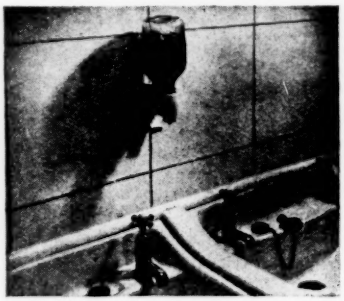


HYGIENE

Washing Cream and Dispenser

HERE is a new washing cream, and a revolutionary dispenser for it. Zalpon is made from soap blended with detergents. It is smooth and creamy, olive green in colour and pleasantly perfumed. It has good lathering properties, even in hard water; and the makers claim for it that it cuts waste down to a negligible minimum.

The dispenser, once fixed to the wall, can be removed only with a special key. The glass jar in which the cream is supplied is locked into position in the dispenser. A touch of a lever releases a pre-set amount of the cream. Refill jars can be inserted into the dispenser in a few moments. The cream is delivered in cases of one dozen jars, each containing approximately one pint. **(PM/399.)**



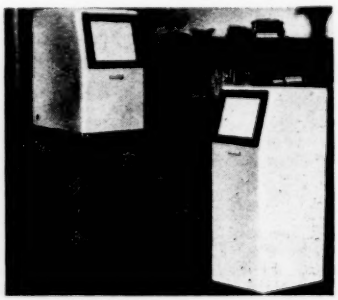
TRAINING

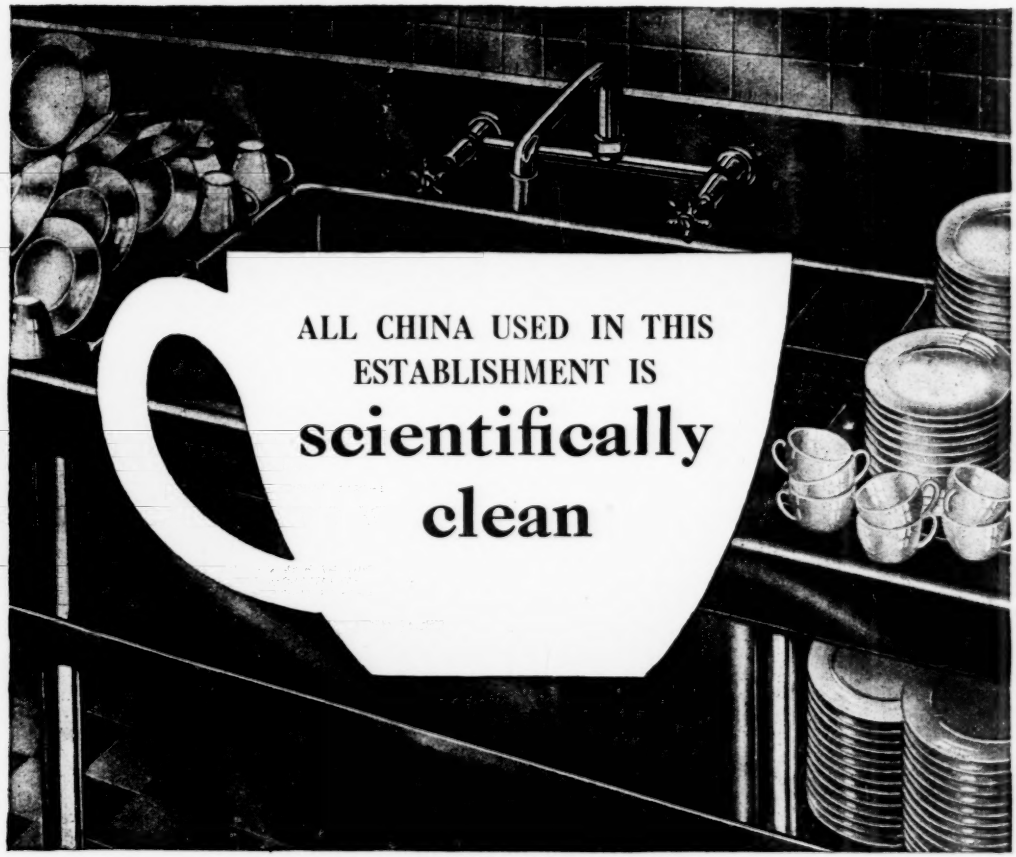
New Visual Aid

THE Rotavisor is a self-contained fully automatic film loop diascope. It contains its own screen and is designed for use in daylight without any external shading. It is an extremely useful means of demonstrating to small groups of people almost any subject or process that can be recorded on 35 mm. film strip. Its potentialities in the sphere of training in industry are obvious.

The mechanism controlling the motion of the film loop is normally set so that each frame is projected for 12 secs. before the one succeeding it is moved into position. This timing is, however, variable between certain limits, and means are provided whereby the mechanism can be halted to allow for prolonged examination of any individual picture.

It is manufactured in both table and console patterns, and there are models for monochrome and colour. **(PM/400.)**





is yours?

China and cutlery can look clean, but scientific cleanliness is another matter. Catering is difficult enough these days without fussing about bacteria. Yes! but there's no need to worry as Chinabrite has been prepared specially for the catering trade. It provides cleanliness with sterility for machine and hand washing-up. It saves time and trouble, and keeps crockery sparkling white. Why not try it ?

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Ten Ways to Cut Canteen Costs

By PETER MARTIN

LAST month I wrote about the decision of the industrial catering organisations that canteen prices must be raised, because it is no longer possible for even subsidised meals services to carry the burden of higher costs and give the same quality of meals as, say, a year ago. However, granted that tariffs must go up, the aim of the industrial caterer should be to keep the increases as low as possible. Can economies be effected without lowering the standard of the food or the service? Undoubtedly they can.

The first step is to make a thorough investigation of costs to ascertain exactly where the money is being spent. This may appear trite, but the fact is that some canteen managers and not a few industrial managements responsible for feeding their workers are much more hazy on this point than on the organisation and day-to-day running of the canteen. Of course, your works or cost accountant should be able to give considerable help here, with his analytical mind trained to itemise costs down to the minutest detail. Too often the canteen manager in his attempts at costing is apt to overlook items which should be charged up to the canteen and which would appear in a really comprehensive profit-and-loss return. Although it may be a non-profit making undertaking, the canteen should be as strictly controlled and scrutinised from the financial point of view as any productive department of the factory.

Because there are considerable differences between the amount and form of subsidy of industrial canteens it is impossible to list everything which is properly chargeable to running costs. Some channels of expenditure are common to all, however, and here is where savings can be suggested. Food, staff wages, capital cost and maintenance of equipment; purchase and renewals of cutlery and crockery, cleaning materials, overalls; fuel (cooking, heating, lighting—and ventilation) and current consumption of electric kitchen appliances; telephone and stationery charges—these are costs incurred in every canteen.

How can one economise in food without reducing either the quality or quantity of portions served? That is where the experience, enterprise and adaptability of a really expert catering manager are especially valuable. If he or she has had only a small practical experience of large-scale cooking it will be difficult or even impossible to convince the kitchen staff that there are ways and means of saving on food costs without skimping the meals. But good results can be obtained by introducing new and cheaper dishes and eliminating waste in every stage of preparation, cooking and serving.

I should have said earlier than this that good buying is one of the secrets of successful canteen management and here is a most fruitful source of economy. Perhaps an even keener scrutiny of prices in the market may be possible. This will entail more time and trouble, but it is beginning economy at the right end of the scale.

Do not confuse enterprise and ingenuity in meal planning with experimentation for experimentation's sake. The great majority of canteen users are ultra-conservative where their food is concerned, and you may drive them from the canteen and make matters worse instead of better if innovations in the menu are frequent. Yet they will appreciate an occasional variation from the usual five-day round of meals.

The fixed charges on a canteen, such as wages, fuel, laundry, wear and tear of equipment, replacements—and, in some cases, rent of the building—may contain the nucleus of appreciable economy.

In these days of competition for the most unskilled labour some people may smile wrily at the notion of a canteen being overstaffed, but this is still possible. And have I not read somewhere about economy of effort and time-and-motion study? I know this can be and has been overdone in factories but I doubt whether it has been seriously applied in any but a few canteens.

A great deal of wasted labour can be tracked down if one is determined to make the maximum use of staff. It is surprising how little some canteen employees exercise what passes for grey matter in their heads when engaged on routine tasks which are apparently humdrum. Some will walk yards unnecessarily and cover the same ground two or three times

1 See where the money goes.

2 Introduce new and cheaper dishes.

3 Eliminate waste in plating-up and serving food.

4 Scrutinise markets for "good buys".

5 Keep check on fixed charges, e.g., wages, fuel, laundry.

6 Eliminate waste labour — try a little "motion study".

7 Introduce labour-saving equipment. It pays for its keep.

8 Train all staff in the efficient use of equipment.

9 Watch perishable goods. Use *all* contents of tins.

10 Check, check and check again on all supplies and stores.

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when once is all that is needed if a little thought is put into the job. Often utensils are moved one by one in the kitchen when at least two—sometimes three—could be carried on the one journey. Trolleys are not filled to their utmost capacity and the "stackability" of crockery (always, of course, having regard to the possibility of falls and breakages) not explored to the full.

There are possibilities, too, in changing members of staff over to different jobs which they may execute more quickly and efficiently than the one they have been doing for years. This expedient may not work in more than a few cases, but it may be worth a trial. Tact in suggesting the change is essential and regard must be paid to the fact that probably not all the staff are popular with their colleagues. Incidentally, I have not heard of aptitude tests for catering employees, although these are so much a feature of modern personnel management in the factories themselves.

No doubt, with hints of another fuel crisis in the coming winter, industrial establishments of all kinds will be inundated with official admonitions, suggestions and even orders to save fuel in every possible way. A daily check on switches, gas taps and burners, lights in places where they tend to be forgotten, failure to utilise residual heat in cooking apparatus, better lagging where possible, preventable draughts, too much opening and shutting of kitchen doors and many other avenues for wastage will still pay dividends.

Then, equipment. An Englishwoman who recently returned from the United States was of the opinion that American women overdo the use of mechanical aids in the home, especially in the kitchen. "They spend as much time in keeping these machines in running order as we do in doing the actual work," she said, or words to that effect. It is true that machines in the kitchen can be overdone and "gadgetry" for its own sake is a kind of occupational disease with some cooks. Most British large-scale kitchens, however, could well do with more appliances, not so much to reduce the number of staff needed as to ensure that their time is most usefully employed and meal preparation is speeded up. To install additional labour-saving devices will, of course, pile up capital expenditure for, say, twelve months, but the machines, if chosen wisely and used intelligently, will more than pay for their keep in the long run.

As for the heavier equipment, such as stoves, fish fryers, vegetable boilers, refrigerators and so on, is it all in the best condition? Is any of it out of date or past its peak in usefulness?

Again, are you satisfied that everyone working in the kitchen is completely acquainted with the details of efficient use of the equipment, or are there points which have escaped them but which would save time, units and therms if they were made aware of them?

Now for some details, trivialities as they may strike some readers but which, added together, may make all the difference between a penny or twopence more on the price of a meal.

Are your tins of foodstuffs opened properly and is every scrap of their contents put to good use? "Scraping the barrel" is a term much used by politicians today. What about scraping the tin? The stockpot may be another valuable weapon in the campaign for economy, and "leftovers" are not always to be despised.

There is often room to save on meal service without being miserly to the customer. Plating-up can be done sloppily and the course may look unattractive, with the result that a reasonably hungry man may leave some food uneaten, whereas good presentation may not only eliminate waste, it may make a slightly smaller portion feasible.

Keep a close check, too, on food in the larder. Here, not only "moth and rust doth corrupt," as the Biblical injunction tells us, but, to continue the parable, "thieves break through and steal." While a certain amount of "perks" for the canteen staff is often winked at, the manager should always remember his job is to provide an efficient and economical meals service, not to help augment the rations of outside households.

Check, check, check, from morning until night. Check issues from stores, check what you get in cooked food from the raw material which leaves the store (and be more than niggardly in handing out keys.

Watch perishables, such as vegetables and milk. If your refrigerator space is small, enlarge it as soon as you can. Don't seek to save a fraction of a penny per pound by buying a huge quantity of vegetables if some of it may deteriorate in store.

Outside the kitchen, check again on cleaning materials—soap, detergents, cloths, mops, brooms, scrubbing brushes. Odd scraps of soap should not be cast aside but can be "married" with others to delay the taking of a new tablet from store. Soda solutions are often too strong. Water can be heated to an unnecessarily high temperature, on the other hand really hot water, for some cleaning operations (especially utensils) reduces the amount of cleansing agent required.

STUDYING HUMAN RELATIONS IN INDUSTRY

A party of thirty studying human relations in industry, on behalf of the management of Short Bros. and Harlands Ltd., Belfast, chose the Hoover Ltd. factory at Perivale as being helpful for this purpose. In this picture of some of the party are, left to right: Messrs. G. W. Williamson, industrial consultant; A. T. Carse, chief production engineer; G. T. Gedge, works manager; K. L. C. Legg, D. F. Rankin, J. C. Stewart, L. B. Morton and W. H. Richardson, production control superintendent

Looking ahead

WELFARE AND PRODUCTION EQUIPMENT TO BE INSTALLED

Birkenhead.—A factory and repair shops are proposed in Wallasey Bridge Road by the Vacuum Oil Co. Ltd., Caxton House, London, S.W.1.

Bolton.—Plans have been submitted for pithead baths and canteen at Deane (Victoria) Colliery, Wigan Road, for National Coal Board.

Brentford.—A new workshop and offices are proposed by Eagle Hosiery Knitting Mills Ltd., 15 Essex Place, London, W.4.

Brighton.—The B.C. proposes a lease to Shipton Engineering Co. Ltd., of 3 acres at Hollingbury Industrial Estate for a factory. Plans by the Borough Surveyor. The B.C. will obtain building tenders. A factory and office premises at Crowhurst Road, Hollingbury, are proposed by Skelton Sleet and Co. Ltd. The T.C. is recommended to approve plans.

Burton-on-Trent.—A new factory is proposed by Hodgson and Hodgson Ltd., Nottingham.

Chorley.—Plans approved by the B.C. for weaving shed, welfare department and lavatories at Greenfield Mill, proposed by Brindles Ltd.

Croydon.—A new factory is proposed by P. Newman Ltd., to plans by G. Crump, 43 George Street, Croydon.

Dagenham, Essex.—B.C. is recommended to invite tenders for erection of a multi-purpose building on the Hainault Estate. Planning application has been made for new factories on Hainault Industrial Estate for the following firms: Megam Units Ltd., 74 Clerkenwell Road, E.C.1, S. Hills and Co. Ltd., and G. H. Miller and Co. Ltd., Contractors, Sheridan Works, Thorpe Road, E.7.

Daventry.—Plans for a factory in West Street, Weedon, proposed by J. Sears and Co. (True Form Boot Co.) Ltd., Northampton, have been approved by the R.D.C.

Eston (Yorks).—Kitching and Co., 21 Albert Road, Middlesborough, are the architects for a hostel proposed for the employees of Smith's Dock Co. Ltd. The scheme is still in a preliminary planning stage.

Glamorgan.—The National Miners' Joint Council proposes pithead baths, etc., at Llanbradoch Colliery, to plans by the Architects' Department, N.C.B., Cambrian Buildings, Mount Stuart Square, Cardiff.

Glasgow.—Planning permission has been given to Kennedy, Macleod and Co. Ltd., 24a, St. Vincent Crescent, Glasgow, C.3, for a canteen building. Rule and Moffatt will erect a workshop at 150 Cumberland Street, C.5. George A. Boswell and Partners, 256 West George Street, Blythswood Square, Glasgow, C.2, have prepared plans for a canteen proposed on Queenslie Industrial Estate. Corporation Planning Committee has approved in principle, the granting of planning permission to the Parkhead District Railwaymen's Welfare Club, for the erection of a welfare hall at Duke Street.

Hornchurch. — Essex Welding Co. Ltd., has received Town Planning approval from the B.C. for a new factory at New Road. The B.C. has also granted Town Planning approval to Denver Chemical and Metal Refining Co. Ltd., for erection of canteen, laboratory and sanitary block at Ferry Lane, Rainham.

Hull.—Quibell and Son Ltd., Beverley Road, Hull, have secured the main building contract for the new £500,000 factory for Imperial Typewriter Co. Ltd., Leicester. The factory will be erected on a 14 acre site at Hedon Road, Hull, and a building licence for £330,000 has been received. The architects are Priestman and Lazenby, 15 Bishop Lane, Hull.

Newcastle-on-Tyne.—Newrick and Blackbell, 58 John Street, Sunderland, are the architects for proposed flock factory in Foundry Lane for S. Quin and Son Ltd., bedding manufacturers.

Newcastle-under-Lyme. — New premises are proposed by British Glues and Chemicals Ltd.

Newcastle-on-Tyne.—Work has commenced on the erection of design and research building, to cost several hundreds of thousands of pounds, for C. A. Parsons and Co. Ltd., electrical plant manufacturers, Heaton, Newcastle.

Redhill, Surrey.—Monotype Corporation Ltd. will carry out large extensions to their premises at Honeycrock Lane, Salfords, Redhill, at an estimated cost of £120,000.

Renfrewshire. — Scottish Industrial Estates Ltd., 3 Woodside Crescent, Woodlands Road, Glasgow, C.3, propose a new factory at Glebe area, Greenock, to be occupied by James Y. Keenie Ltd., of Johnstone, and have had plans prepared by their own architects.

Sheffield.—A site at Solly Street and Scotland Street will be leased by the T.C. to Yorkshire Testing Works Ltd., for new laboratories, offices and machine shops.

STANDBY GENERATORS

(Continued from p. 63)

added together and divided by the total number of units consumed.

Where a steady supply of steam is necessary for continuous processes, and at the same time a maximum demand tariff for electricity obtains, these two conditions can be used to advantage by installing a "back pressure" steam generating plant, as steam can be fed to the engine at high pressure and passed through the exhaust at a lower pressure suitable for the processing. By this means electricity can be generated at a price per unit less than that charged by the electricity boards, and at the same time, the maximum demand on the public supply can be kept at a lower level. This in turn means that the average price per unit paid to the board is lower.

In the case of the larger steam-driven turbine generating plant it is sometimes possible to arrange with the electricity authority for energy to be fed into their system at times when the whole capacity of the privately owned generating plant is not required; the electricity authority will naturally require strict arrangements for operation under these conditions in view of the technical difficulties involved.

It is also possible for the diesel user to avoid peaks in his demand on the electricity board by using his own generating plant in addition to the public supply at times when these peaks are likely to occur. This levelling of the demand will mean a lower average price per unit paid to the electricity board.

In conclusion, it may be said that the judicious use of private generating plant not only effects a saving for the management by reducing the overall cost of electricity and acting as an insurance against the stoppage of his machinery during power cuts, but also plays a part whose monetary value it is more than difficult to assess—that of building up worker morale and good labour-management relationship.

Summary of Official Publications

YOUR "P.M." GUIDE TO ACTS, STATUTORY ORDERS AND AWARDS

BILLS

Workmen's Compensation (Pneumoconiosis). Dated May 8, 1951. *H.M.S.O.* 4*d*. To allow compensation to be paid to persons who contracted pneumoconiosis before July 5, 1948, but were then excluded from benefit under the Workmen's Compensation Acts because of certain time limits.

STATUTORY INSTRUMENTS

No. 1031. The Wages Regulation (Licensed Residential Establishment and Licensed Restaurant) Order, 1951. Dated June 11, 1951, made by the Minister of Labour and National Service under Section 8 of the Catering Wages Act, 1943(a). *H.M.S.O.* 1*s*. (Revokes Orders L.R.(7) and L.R.(10), and fixes new statutory minimum remuneration payable. Also fixes holidays and holiday remuneration payable to all workers except "extra waiting staff." Operative as from July 1, 1951.)

No. 1080. The Rubber Manufacturing Wages Council (Great Britain) Wages Regulation (Holidays) Order, 1951. Dated June 20, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(b). *H.M.S.O.* 4*d*. (Revokes Order R.U. (30) and sets out annual and certain other customary holidays and holiday remuneration payable to workers, other than home workers. Operative from July 6, 1951.)

No. 1087. The Milk Distributive Wages Council (England and Wales) Wages Regulation (Holidays) Order, 1951. Dated June 22, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(a). *H.M.S.O.* 4*d*. (Revokes Order M.D. (46) and fixes annual holidays and holiday remuneration payable. Operative as from July 11, 1951.)

No. 1102. The Rubber Reclamation Wages Council (Great Britain) Wages Regulation Order, 1951. Dated June 25, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(d). *H.M.S.O.* 4*d*. (Revokes Orders R.R. (19) and R.R. (24) and fixes new statutory minimum remuneration payable. The second schedule amends Order R.R. (20) which relates to holidays and holiday remuneration. Operative as from July 16, 1951.)

No. 1103. The Retail Food Trades Wages Council (England and Wales) Wages Regulation Order, 1951. Dated June 25, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(b). *H.M.S.O.* 9*d*. (Revokes Order R.F.C.(6) and fixes statutory minimum remuneration payable. Operative as from July 18, 1951.)

No. 1111. The Firemen's Pension Scheme (No. 2) Order, 1951. Dated June 25, 1951, made by the Principal Secretary of State in conjunction with the Treasury under Section 26 of the Fire Services Act, 1951(b). *H.M.S.O.* 2*d*. (Provides that the Firemen's Pension Scheme shall apply to a member of the fire brigade engaged for fire fighting duties to the exclusion of all other statutory pension provisions. Operative as from July 1, 1951.)

No. 1114. The Retail Drapery, Outfitting and Footwear Trades Wages Council (Great Britain) Wages Regulation (No. 2) Order, 1951. Dated June 26, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(d). *H.M.S.O.* 6*d*. (Revokes Orders R.D.O.(6) and R.D.O.(8), and sets out new statutory minimum remuneration payable. It repeats without alteration the amendments to Order R.D.O.(4) relating to holidays and holiday remuneration. Operative as from July 23rd, 1951.)

No. 1115. The Retail Newsagency, Tobacco and Confectionery Trades Wages Council (Scotland) Wages Regulation (Amendment) Order, 1951. Dated June 26, 1951, made by the Minister of Labour and National Service under Section 10 of the Wages Councils Act, 1945(b). *H.M.S.O.* 3*d*. (Amends Order R.N.T.S.(6) by increasing statutory minimum remuneration payable in Scotland. Operative as from July 16, 1951.)

No. 1150. The Workmen's Compensation (Supplementation) Scheme, 1951. Dated June 27, 1951, made by the Minister of National Insurance under the Workmen's Compensation (Supplementation) Act, 1951(a). *H.M.S.O.* 6*d*. (Provides for payment of allowances out of the Industrial Injuries Fund to certain persons with rights to workmen's compensation for accidents or diseases contracted before January 1, 1924. Operative as from July 11, 1951.)

No. 1156. The Wages Regulation (Industrial and Staff Canteen Undertakings) Order, 1951. Dated June 28, made by the Minister of Labour and National Service under Section 8 of the Catering Wages Act, 1943(a). *H.M.S.O.* 9*d*. (Revokes the Wages Regulation (Industrial and Staff Canteen Undertakings) (Holidays) Order, 1946, the Wages Regulation (Industrial and Staff Canteen Undertakings) Order, 1948, the Wages Regulation (Industrial and Staff Canteen Undertakings) (Amendment) Order, 1950, and the Wages Regulation (Industrial and Staff Canteen Undertakings) (Amendment) (No. 2) Order, 1950, and fixes new statutory minimum remuneration payable and holidays to be allowed. Operative as from July 25, 1951.)

GENERAL

Report of the Committee on Recruitment and Training for the Youth Service. Issued by the Ministry of Labour and National Service, July, 1951. *H.M.S.O.* 9*d*. (*See also page* 79.)

International Labour Conference. Report on proposed action by His Majesty's Government on the recommendation concerning vocational training of adults, including disabled persons. Issued by the Ministry of Labour and National Service, July, 1951. Cmd. 8287. *H.M.S.O.* 3*d*.

International Labour Conference. Report on proposed action by His Majesty's Government on recommendations concerning protection of wages, and fee-charging employment agencies. Issued by the Ministry of Labour and National Service, July, 1951. Cmd. 8286. *H.M.S.O.* 3*d*.

Seats for Workers in Factories. Welfare Pamphlet No. 6. Issued by the Ministry of Labour and National Service, Factory Department, July, 1951, (fifth edition). *H.M.S.O.* 3*s*.

Cloakrooms, Washing Facilities, Drinking Water and Sanitary Accommodation in Factories. Welfare Pamphlet No. 8. Issued by the Ministry of Labour and National Service, Factory Department, July, 1951, (fifth edition). *H.M.S.O.* 1*s*. 6*d*.

Civil Defence. Manual of Basic Training, Vol. 1. Pamphlet No. 2. Welfare Section. Issued by the Home Office, July, 1951. *H.M.S.O.* 1*s*.

Civil Defence. Manual of Basic Training, Vol. 1. Pamphlet No. 3. Warden Section. Issued by the Home Office, July, 1951. *H.M.S.O.* 1*s*. (*See also page* 83.)

INDUSTRIAL COURT AWARDS

No. 2322. National Health Service. Reference: To determine claim for revised salary scales for headquarters medical staff of Regional Hospital Boards. Award: The Court awarded minimum salary scales ranging from £1,750 to £2,500, according to district, for Senior Administrative Medical Officers; £1,550 to £1,650 for Deputy Senior Administrative Medical Officers; and £1,800 to £2,000 for Regional Psychiatrists. (May 29, 1951.)

No. 2323. Saw Mill Industry. Reference: Interpretation of Award No. 2315. The Court ruled that increased rates under Award No. 2315 operated from the beginning of the pay period commencing May 3, 1951. (May 31, 1951.)

No. 2324. Civil Air Transport. Reference: For wage increase of 15s. per week for firemen; for wage structure for all protection staff; for establishment of basis of payment for overtime. Award: The Court awarded salary scales as follows: Firemen, £6 19s. to £8 4s. (London), £6 19s. to £7 14s. (Provinces); leading firemen, £7 19s. to £8 19s. (London), £7 9s. to £8 9s. (Provinces); fire section leaders £8 14s. to £10 4s. (London), £8 4s. to £9 14s. (Provinces); security wardens, £6 19s. to £8 4s. (London), £6 9s. to £7 14s. (Provinces); corporal wardens, £7 14s. to £8 4s. (London), £7 4s. to £7 14s. (Provinces); sergeant wardens, £8 11s. 6d. to £9 6s. 6d. (London), £8 1s. 6d. to £8 16s. 6d. (Provinces); commissionaires, £6 9s. to £7 14s. (London), £5 19s. to £7 4s. (Provinces). For the first six hours' overtime, payment per hour to be at 1 48 of the basic rate; additional overtime, 1 48th of the basic rate plus one-half. (May 31, 1951.)

No. 2325. Lace Furnishing Industry. Reference: For increase of 3d. per hour for weavers and spoolers employed on specified shifts. Award: In favour of claim. (May 31, 1951.)

No. 2326. National Health Service. Reference: For pay increase for medical laboratory technicians employed in the Blood Transfusion Centres when working "on call" or "stand by" duties outside normal hours. Award: The Court awarded payment of 10s. night duty allowance for "stand by" duty at the centre overnight, or at week-ends outside normal working hours. Work done as a result of an emergency call to be paid at 7s. 6d. for the first hour and 5s. thereafter. (June 7, 1951.)

No. 2327. Public Health Service. Reference: Interpretation of Award No. 2285. Award: The Court ruled that the intention of their Award was that the appropriate scales of Medical Officers of Health should be determined by population, other local factors and functional responsibility, and Medical Officers of Health should then be assimilated to that scale in accordance with the assimilation clause of the Award. The scale awarded in respect of Senior Medical Officers should apply, irrespective of population, to all authorities with populations exceeding 250,000. (June 7, 1951.)

No. 2328. National Health Services. Reference: Dispute concerning salaries of certain medical auxiliaries, e.g., physiotherapists, therapeutic dieticians, etc. Award: The Court awarded an increase of £50 a year in existing scales. (June 13, 1951.)

No. 2329. National Health Services. Reference: Dispute concerning salaries of biochemists and physicists employed in laboratories and scientific departments of hospitals. Award: The Court awarded salary scales ranging from £375 during probation in the basic grade, to a minimum of £1,425 in the top grade, plus London weighting. (June 19, 1951.)

No. 2330. Distributive Trade. Reference: Dispute concerning duties of allocators and salesmen clerks in the meat supply trade. Award: The Court found that the work of allocators in connection with the export of meat outside the Midland W.M.S.A. area did not form part of the normal duties of the workers concerned, but the interchange of allocators and salesmen clerks as between scales within a depôt and as between depôt and/or scales within the Birmingham Market was a normal condition of service. (June 19, 1951.)

No. 2331. Railway Salaried Staff. Reference: To determine the right of the Railway Executive to take into account dependants' benefits under National Insurance when calculating sickness payments to staff. Award: The Court found that the Executive had the right to take such benefits into consideration for purposes of payment to staff absent through sickness. (June 21, 1951.)

NATIONAL ARBITRATION TRIBUNAL AWARDS

No. 1654. Tonnage Bonus for Certain Workers Employed by an Iron and Steel Firm at Ebbw Vale, Monmouthshire. Claim: For payment to sheeters, sheeters' helpers and erectors of a production bonus similar to that paid certain other workers. Award: The Tribunal awarded a production bonus of 10s. a week based upon a normal mill output of 14,000 tons a week; bonus shall be paid only when workers are employed on time work and shall be caculated on same hourly basis as for maintenance craftsmen and mates. (April 19, 1951.)

No. 1655. Remuneration of Pieceworkers Employed in the Sports Goods Manufacturing Industry. Claim: For amendment of piecework prices to permit average worker to earn at least 35 per cent above appropriate minimum day rate instead of 25 per cent as at present. Award: Claim not established. (April 20, 1951.)

No. 1656. Claim for Payment in Lieu of Notice to Certain Workers Employed by an Engineering Firm at Manchester. Claim: For payment in lieu of notice in accordance with engineering agreement. Award: Claim not established. (April 26, 1951.)

No. 1657. Remuneration of Engineer-Surveyors Employed by Certain Insurance Companies and Underwriters. Claim: For specified salary scales. Award: The Tribunal awarded minimum salary scales ranging from £520 during first year of service to £750 after 10 years' service. The Tribunal referred back for negotiation the question of rates for head office engineers but awarded that those in the London area be paid 5 per cent above the scale finally agreed. (April 30, 1951.)

No. 1658. Dispute Concerning the Operation of a Certain Type of Full Fashioned Hose Knitting Machine. Claim: Dispute concerning operation of Full Fashioned Mesh Knitting 20-at-once machines. Award: The Tribunal found in favour of the employers' contention that on the 45 gauge 20 section Lacelon Machines there should be two machines to one operative. (May 1, 1950.)

No. 1659. Salary Scales of Certain Technicians Employed at the University of Birmingham. Claim: For specified salary scales. Award: The Tribunal found against the claim as stated but awarded minimum rates as follows: Juniors: Grade V, Rising from £1 15s. per week at 15 to £4 at 21, with an efficiency bar at 18, and merit awards up to 5s. a week extra. Laboratory Assistants and Technical Assistants: Grade IV, £4 5s., rising by annual increments of 5s. to £6., with merit awards up to 10s.; Grade III, £6, rising by 5s. to £8, with merit awards up to 15s. Chief Technicians and staff with special responsibilities: Grade II, £8, rising by 10s. to £10; Grade I, £525 per annum by £25 to £600, and in special cases to £650. Merit awards shall be maintained on promotion to a higher grade. (May 1, 1951.)

No. 1660. Rates of Wages of Ambulance Staffs Employed in the Hospital Service. Claim: That ambulance attendants and drivers (unqualified) be paid a plus rate of 7s and 13s. a week respectively. Award: Claim not established. (May 1, 1951.)

No. 1661. Annual Holidays in the Electrical Contracting Industry in England and Wales. Claim: For two weeks' annual paid holiday. Award: Claim not established. (May 4, 1951.)

No. 1662. Claim for Retrospective Payment of Bonus and Premium Time to Two Workers Formerly Employed by an Engineering Firm in Manchester. Claim: For retrospective payment of bonus and premium time. Award: The Tribunal found in favour of the claim and awarded accordingly. (May 7, 1951.)

No. 1663. Remuneration of Clerical and Supervisory Staff Employed by a Road Passenger Transport Undertaking in the North West of England. Claim: For specified salary scales. Award: Claim not established. (May 7, 1951.)

No. 1664. Remuneration of Certain Classes of Engineering Workers Employed at an Establishment in Lanarkshire. Claim: For payment not less favourable than that in another of the company's works. Award: In favour of claim. (May 17, 1951.)

No. 1665. Rates of Wages and Conditions of Employment of Maintenance Fitters Employed by a Firm of Roofing Felt Manufacturers and Bitumen Producers in the Dundee District. Claim: That wages and conditions of engineering workpeople be not less favourable than those observed by members of the Association of Chemical and Allied Employers carrying out similar processes, i.e., tar distilling. Award: The Tribunal found the claim not established. (May 17, 1951.)

No. 1666. Fall-Back Payment to Slaughtermen Employed at the Glasgow Abattoirs. Claim: For provision of a fall-back wage for slaughtermen. Award: The Tribunal awarded that a guaranteed weekly minimum fall-back wage of £4 3s. be paid, each week to stand by itself. (May 17, 1951.)

No. 1667. Rates of Wages and Conditions of Employment of Tugboatmen Employed on the River Clyde. Claim: For increase in wages and variations in conditions of employment. Award: The Tribunal awarded as follows: (a) basic rates be increased by 20s. per week; (2) normal hours be 50 per week; (3) a minimum payment of 2 hours at overtime rate to be paid each member of the crew when called out between 5 p.m. and 7 a.m. and the job is cancelled; this payment not to apply where detention or waiting money is paid. (May 17, 1951.)

No. 1668. Value of the Emoluments Attached to the Post of a Particular School Caretaker in Birmingham. Claim: For alteration in the assessment of emoluments. Award: Claim not established. (May 18, 1951.)

No. 1669. Rates of Wages of Distributive and other Workers Employed by a Particular Company at Their Departmental Stores in Various Districts. Claim: For wage increase for selling and non-selling staff (other than transport and productive workers), with a minimum of £6 a week. Award: Claim not established. (May 18, 1951.)

No. 1670. Rates of Wages for Workers Employed in Engineering Establishments on Packing and Making Wood Boxes, Packing Cases or Wooden Containers (Award No. 1574). Claim: That Award No. 686 should apply to all members employed on packing and making boxes and packing cases or wooden containers in federated establishments. Award: The Tribunal awarded that they be paid rates generally applicable to adults entering the engineering industry. (May 21, 1951.)

No. 1671. Annual Holiday in the Brush Industry. Claim: For an additional week's holiday with pay. Award: Claim not established. (May 25, 1951.)

No. 1672. Rates of Wages and Conditions of Employment of Certain Sawmill Workers Employed by a Firm in the Home Grown Timber Trade in Scotland. Claim: For specified rates and conditions of employment. Award: The Tribunal awarded as follows: (a) normal working week of 44 hours; the working week to be mutually agreed. (b) Wage rate—skilled sawyers 2s. 9d. per hour, semi-skilled sawyers 2s. 7d., mill labourers 2s. 5d., youths from 1s. 2d. at 18 years of age to 2s. 5d. at 20. (c) Specified overtime rates to be paid for all hours over 44. (d) Annual holidays with pay to be granted at the rate of one day's holiday for each two months' service up to a maximum of one week. (e) Payment at ordinary rate to be made for six other statutory holidays or other days in lieu. A claim for payment during inclement weather was found not established. (May 28, 1951.)

No. 1673. Oilship Repair Allowances for Certain Workers Employed in Ship Repairing Yards in the Bristol Channel District. Claim: That repair allowances be governed by the engineering agreement of November 28, 1950, and not that of December 13, 1950. Award: The Tribunal found the claim not established. (May 28, 1951.)

No. 1674. Piece Rates of Certain Workers Employed in the Fellmongering trade in Scotland. Claim: For increase of 7½d. per cent in existing piece rates. Award: In favour of workmen. (May 29, 1951.)

No. 1675. Basic Rate of Pay of Bookbinders Employed in the London Area on Publishers' and Library Binding. Claim: Dispute regarding London rate for binders engaged on publishers' and library binding. Award: Tribunal awarded a minimum rate of 155s. per week. (May 30, 1951.)

No. 1676. Rates of Pay of Certain Workers Employed at the Coke and By-products Plant of a Company in Nottinghamshire. Claim: For observance by the company of wage rates awarded by the East Midlands District Conciliation Committee for the Coalmining Industry in their agreement of December 3, 1950. Award: The Tribunal awarded that the Award of November 20, 1950, be applied, and increases paid over a stipulated period. (May 31, 1951.)

No. 1677. Dismissal of Three Workers Formerly Employed by the Ayr County Council. Claim: That dismissal of workers was breach in Conditions of Service Agreement. Award: Claim not established. (June 5, 1951.)

No. 1678. Rates of Wages and Annual Holidays in the Fibre Textile Accessories Manufacturing Industry (Award No. 1589). Claim: For a further week's holiday with pay and higher starting rates for non-productive workers. Award: The Tribunal found in favour of the claim for an additional week's holiday and awarded accordingly. (June 5, 1951.)

No. 1679. Annual Holidays in the Motor Vehicle Retail and Repairing Trade. Claim: For an additional week's holiday with pay. Award: In favour of the claim, the award to have effect from 1952. (June 5, 1951.)

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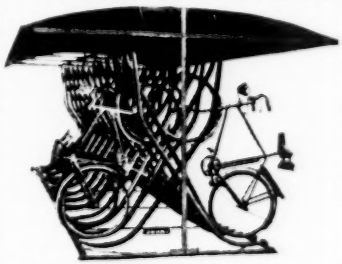

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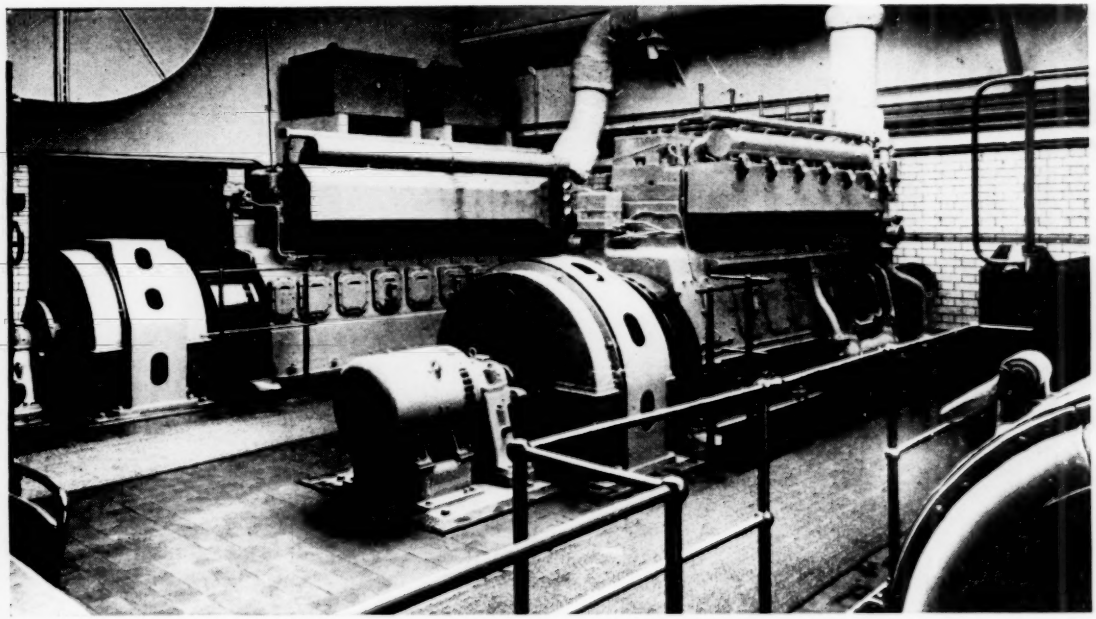

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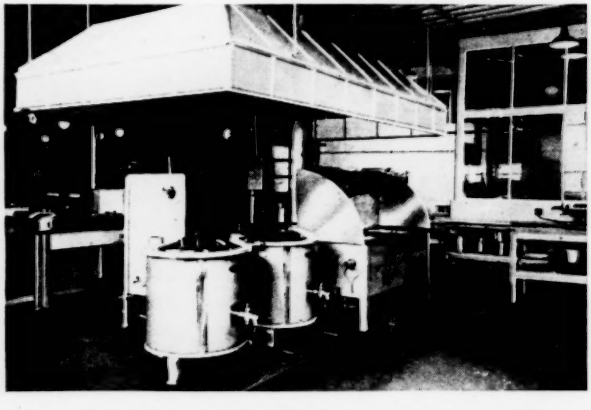

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